

February 1993

ISSN 0045-7825

## CUMULATIVE INDEX OF VOLUMES 1-100

# Computer methods in applied mechanics and engineering

**Editors:**

J.H. Argyris,  
(Principal Editor)  
Stuttgart, London

T.J.R. Hughes  
Stanford, CA

J.T. Oden  
Austin, TX

CMMECC Cumulative Index



NORTH-HOLLAND

# COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING

EDITORS: J.H. ARGYRIS, STUTTGART and LONDON

T.J.R. HUGHES, STANFORD, CA

J.T. ODEN, AUSTIN, TX

W. PRAGER  
Founding Editor  
(deceased 1980)

## EDITORIAL ADDRESSES

John H. ARGYRIS  
Institut für Computer Anwendungen  
Pfaffenwaldring 27  
W-7000 STUTTGART 80  
Germany  
(Editorial Office)

or

Department of Aeronautics  
Imperial College of Science  
and Technology  
Prince Consort Road  
LONDON S.W. 7  
UK

Thomas J.R. HUGHES  
Division of  
Applied Mechanics  
Durand Building  
Room No. 281  
Stanford University  
STANFORD  
CA 94305-4040, USA

J. Tinsley ODEN  
TICOM  
3500 West Balcones  
Center Drive  
AUSTIN  
TX 78759, USA

## ASSOCIATE EDITORS

K. APPA, Hawthorne, CA  
I. BABUŠKA, College Park, MD  
A.J. BAKER, Knoxville, TN  
T. BELYTSCHKO, Evanston, IL  
L. DEMKOWICZ, Krakow  
R.E. EWING, Texas, TX  
M. FEINGOLD, Marly-le-Roy

R.H. GALLAGHER, Potsdam, NY  
R. GLOWINSKI, Houston, TX  
H.-O. KREISS, Los Angeles, CA  
J.L. LIONS, Paris  
H. LOMAX, Moffett Field, CA  
C.E. MASSONNET, Liège

L.S.D. MORLEY, Farnborough  
K.S. PISTER, Berkeley, CA  
G. STRANG, Cambridge, MA  
G.P. VOSKRESENSKY, Moscow  
W.H. YANG, Ann Arbor, MI  
O.C. ZIENKIEWICZ, Swansea

## ADVISORY EDITORS

J.F. ABEL, Ithaca, NY  
H. ARMEN, Bethpage, NY  
K.J. BATHE, Cambridge, MA  
P.G. BERGAN, Høvik  
J.F. BESSELING, Delft  
G. BORM, Karlsruhe  
H. BUFLER, Stuttgart  
H. CABANNES, Paris  
C. CANUTO, Torino  
G.F. CARRIER, Cambridge, MA  
T. CEBECI, Long Beach, CA  
A.S.L. CHAN, London  
J.L. CHENOT, Valbonne  
H. CHRISTIANSEN, Provo, UT  
T.J. CHUNG, Huntsville, AL  
P.G. CIARLET, Paris  
H. COHEN, New York, NY  
M.Z. COHN, Waterloo, Ont.  
J. DONEA, Ispra  
P.R. EISEMAN, New York, NY  
B. ENGQUIST, Los Angeles, CA  
C.A. FELIPPA, Boulder, CO  
K. FENG, Beijing  
I. FRIED, Boston, MA  
R.A. GELLATLY, San Leandro, CA

M. GERADIN, Liège  
R. GRUBER, Manno  
K.K. GUPTA, Edwards, CA  
R.W. HAMMING, Monterey, CA  
F.H. HARLOW, Los Alamos, NM  
E.J. HAUG, Iowa City, IA  
J.C. HEINRICH, Tucson, AZ  
M. HOGGE, Liège  
I. HOLAND, Trondheim  
C. JOHNSON, Göteborg  
B.Z. KAPLAN, Beer-Sheva  
T. KAWAI, Tokyo  
J. KESTENS, Brussels  
S.W. KEY, La Cañada-Flintridge, CA  
W.C. KNUDSON, Sunnyvale, CA  
F.A. LECKIE, Santa Barbara, CA  
R.W. LEWIS, Swansea  
K. LINKWITZ, Stuttgart  
LUO Shi-jun, Xi'an  
G. MAIER, Milano  
J.L. MEEK, St. Lucia, Queensland  
A.J. MORRIS, Cranfield  
A. NEEDLEMAN, Providence, RI  
M.P. NIELSEN, Lyngby  
A.K. NOOR, Hampton, VA

R. OHAYON, Châtillon  
P.J. PAHL, Berlin  
B. PAUL, Philadelphia, PA  
R. PEYRET, Nice  
J. PLANCHARD, Clamart  
A.R.S. PONTER, Leicester  
QIAN Ling-xi (L.H. Tsien), Dalian  
A.K. RAO, Bangalore  
M. REISER, Rüsschlikon  
E. RIKS, Delft  
P.J. ROACHE, Albuquerque, NM  
W.P. RODDEN, La Canada, CA  
G.I.N. ROZVANY, Essen  
W. SCHIEHLEN, Stuttgart  
B. SCHÖNUNG, Baden  
H.R. SCHWARZ, Zürich  
P.S. SYMONDS, Providence, RI  
A.B. TEMPLEMAN, Liverpool  
C.W. TROWBRIDGE, Kidlington  
J.R. WHITEMAN, Uxbridge  
K.J. WILLAM, Boulder, CO  
Y. YAMADA, Tokyo  
Th. ZIMMERMANN, Lausanne

Technical Editor: Ineke KOLEN; Editorial Secretary: Marlies PARSONS

© 1993 Elsevier Science Publishers B.V. All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the publisher, Elsevier Science Publishers B.V., Copyright and Permissions Department, P.O. Box 521, 1000 AM Amsterdam, The Netherlands.

No responsibility is assumed by the Publisher for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein. Although all advertising material is expected to conform to ethical standards, inclusion in this publication does not constitute a guarantee or endorsement of the quality or value of such product or of the claims made of it by its manufacturer.

This volume is printed on acid-free paper.

Published 27 times a year

0045-7825/93/\$06.00

Printed in The Netherlands

COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING

## ASSOCIATE EDITORS

- K. APPA, *Northrop Corporation, Aircraft Division, Dynamics and Loads Research, Dept. 3851/82, One Northrop Avenue, Hawthorne, CA 90250-3277, USA*
- I. BABUŠKA, *Institute for Physical Science and Technology, University of Maryland, College Park, MD 20742, USA*
- A.J. BAKER, *Department of Engineering Science and Mechanics, University of Tennessee, 317 Perkins Hall, Knoxville, TN 37916, USA*
- T. BELYTSCHKO, *Department of Civil Engineering, Technological Institute, Northwestern University, Evanston, IL 60201, USA*
- L. DEMKOWICZ, *Institut Mechaniki Budoli, Politechnika Krakowska, ul. Warszawska 24, Krakow, Poland*
- R.E. EWING, *Texas A&M University, The Institute for Scientific Computation, 326 Teague Research Center, College Station, Texas 77843-3404, USA*
- M. FEINGOLD, *9 Rue Thibault, 78 Marly-le-Roy, France*
- R.H. GALLAGHER, *Clarkson University, Potsdam, NY 13676, USA*
- R. GLOWINSKI, *Department of Mechanics, University of Houston, 4800 Calhoun Road, Houston, TX 77004, USA*
- H.-O. KREISS, *Mathematics, U.C.L.A., Los Angeles, CA 90024-7009, USA*
- J.L. LIONS, *Centre National d'Etudes Spatiales, 2, Place Maurice Quentin, 75039 Paris Cédex 01, France*
- H. LOMAX, *Computational Fluid Dynamic Branch, National Aeronautics and Space Administration, Ames Research Center, Moffet Field, CA 94035, USA*
- C.E. MASSONNET, *Institut du Genie Civil, 6, Quai Banning, Liège, Belgium*
- L.S.D. MORLEY, *33 Manor Road, Farnborough, Hants., GU14 7EX, UK*
- K.S. PISTER, *College of Engineering, Department of Civil Engineering, Division of Structural Engineering and Structural Mechanics, University of California, Berkeley, CA 94720, USA*
- G. STRANG, *Department of Mathematics, Massachusetts Institute of Technology, Cambridge, MA 02139, USA*
- G.P. VOSKRESENSKY, *Keldysh Institute of Applied Mathematics, The USSR Academy of Sciences, Miusskaya Sq. 4, Moscow 125047, Russian Federation*
- W.H. YANG, *Department of Applied Mathematics and Engineering Science, The University of Michigan, College of Engineering, Ann Arbor, MI 48109, USA*
- O.C. ZIENKIEWICZ, *Department of Civil Engineering, University of Swansea, Swansea SA2 8PP, UK*

## ADVISORY EDITORS

- J.F. ABEL, *Structural Engineering, School of Civil and Environmental Engineering, Cornell University, Hollister Hall, Ithaca, NY 14853, USA*
- H. ARMEN, *Grumman Aerospace Corporation, Bethpage, NY 11714, USA*
- K.J. BATHE, *Mechanical Engineering Department, Massachusetts Institute of Technology, Cambridge, MA 02139, USA*



- P.G. BERGAN, A.S. Veritas Research, P.O. Box 300, N-1322 Høvik, Norway
- J.F. BESSELING, *Afdeling der Werktuigbouwkunde van de Technische Universiteit, Mekelweg 2, Delft, The Netherlands*
- G. BORM, *Institut für Bodenmechanik und Felsmechanik, Universität (TH) Fridericiana Karlsruhe, Postfach 6380, W-7500 Karlsruhe, Germany*
- H. BUFLER, *Institut für Mechanik (Bauwesen), Universität Stuttgart, Pfaffenwaldring 7, W-7000 Stuttgart 80, Germany*
- H. CABANNES, *Tour 66 - 4ième étage, Université de Paris 6, 4, Place Jussieu, F-75230 Paris, Cedex 05, France*
- C. CANUTO, *Politecnico di Torino, Dipartimento di Matematica, Corso Duca degli Abruzzi 24, I-10129 Torino, Italy*
- G.F. CARRIER, *Division of Engineering and Applied Physics, Pierce Hall, Harvard University, Cambridge, MA 02138, USA*
- T. CEBECI, *Douglas Aircraft Company, 3855 Lakewood Boulevard, Long Beach, CA 90846, USA*
- A.S.L. CHAN, *Department of Aeronautics, Imperial College of Science and Technology, Prince Consort Road, London S.W. 7, UK*
- J.L. CHENOT, *ENS, Ecole Nationale Supérieure des Mines de Paris, Centre de Mise en Forme des Matériaux, Sophia Antipolis, F-06560 Valbonne, France*
- H. CHRISTIANSEN, *Department of Civil Engineering 368 CB, Brigham Young University, Provo, UT 84602, USA*
- T.J. CHUNG, *School of Engineering, Department of Mechanical Engineering, The University of Alabama in Huntsville, Huntsville, AL 35899, USA*
- P.G. CIARLET, *Analyse Numérique, Tour 55-65, Université de Paris 6, 4, Place Jussieu, F-75230 Paris, Cedex 05, France*
- H. COHEN, *The Alfred P. Sloan Foundation, 630 Fifth Avenue, Suite 2550, New York, NY 10111-0402, USA*
- M.Z. COHN, *University of Waterloo, Ontario, Canada*
- J. DONEA, *Commission of the European Communities, Joint Research Centre, Ispra Establishment, Applied Mechanics Division, I-21020 Ispra (Varese), Italy*
- P.R. EISEMAN, *Department of Applied Physics and Nuclear Engineering, Columbia University, New York, NY 10027, USA*
- B. ENGQUIST, *Department of Mathematics, University of California, Los Angeles, CA 90024, USA*
- C.A. FELIPPA, *Center for Space Structures and Controls, Campus Box 429, University of Colorado, Boulder, CO 80309-0429, USA*
- K. FENG, *Chinese Academy of Sciences, Computing Center, P.O. Box 2719, Beijing 100080, People's Republic of China*
- I. FRIED, *Department of Mathematics, College of Liberal Arts, Boston University, Boston, MA 02215, USA*
- R.A. GELLATLY, *Physics International Company, 2700 Merced Street, San Leandro, CA 94577, USA*
- M. GERADIN, *L.T.A.S., Dynamique des Constructions Mécaniques, Université de Liège, Rue Ernest Solvay 21, B-4000 Liège, Belgium*

- R. GRUBER, *Gruppo Applicazione Scientifiche della Svizzera (GASS), Centro Svizzero di Calcolo Scientifico (CSCS), Via Cantonale, CH-6928 Manno, Switzerland*
- K.K. GUPTA, *Mail Stop OFDD, NASA Dryden Flight Research Facility, P.O. Box 273, Edwards, CA 93523, USA*
- R.W. HAMMING, *Code 52 Hg, Department of Computer Science, Naval Postgraduate School, Monterey, CA 93940, USA*
- F.H. HARLOW, *University of California, Los Alamos Scientific Laboratory, P.O. Box 1663, Los Alamos, NM 87544, USA*
- E.J. HAUG, *The University of Iowa, Center for Simulation and Design Optimization, Center for Computer Aided Design, College of Engineering, Iowa City, IA 52242, USA*
- J.C. HEINRICH, *College of Engineering and Mines, Aerospace and Mechanical Engineering Department, University of Arizona, Aero Building 16, Tucson, AZ 85721, USA*
- M. HOGGE, *L.T.A.S., Thermomécanique, Université de Liège, Rue Ernest Solvay 21, B-4000 Liège, Belgium*
- I. HOLAND, *Institutt for Statikk, Norges Tekniske Høgskole, N-7034 Trondheim - NTH, Norway*
- C. JOHNSON, *Department of Mathematics, Chalmers Institute of Technology, S-412 96 Göteborg, Sweden*
- B.Z. KAPLAN, *Department of Electrical Engineering, Ben-Gurion University of the Negev, P.O. Box 653, Beer-Sheva 84 105, Israel*
- T. KAWAI, *Institute of Industrial Science, University of Tokyo, 22-1, Roppongi, 7 chome, Minato-ku, Tokyo 106, Japan*
- J. KESTENS, *23 Avenue du Maréchal, B-1180 Brussels, Belgium*
- S.W. KEY, *KEY Associates, 109 West Inverness Drive, La Cañada-Flintridge, CA 91011, USA*
- W.C. KNUDSON, *Lockheed Missile and Space Company, Inc., P.O. Box 3504, 0181-12, Bldg. 157-5E, Sunnyvale, CA 94088-3504, USA*
- F.A. LECKIE, *Department of Mechanical Engineering, University of California at Santa Barbara, Santa Barbara, CA 93106, USA*
- R.W. LEWIS, *Department of Civil Engineering, University College of Swansea, Applied Science Building, Singleton Park, Swansea SA2 8PP, UK*
- K. LINKWITZ, *Institut für Anwendungen der Geodäsie im Bauwesen, Universität Stuttgart, Keplerstr. 10, W-7000 Stuttgart 80, Germany*
- LUO Shin-jun, *North-Western Polytechnical University, Xi'an, People's Republic of China*
- G. MAIER, *Istituto di Scienza e Tecnica delle Costruzioni, Politecnico di Milano, P. Za. Leonardo da Vinci 32, I-20133 Milano, Italy*
- J.L. MEEK, *University of Queensland, St. Lucia, Queensland 4067, Australia*
- A.J. MORRIS, *College of Aeronautics, Cranfield Institute of Technology, Cranfield, Bedford MK43 0AL, UK*
- A. NEEDLEMAN, *Division of Engineering, Brown University, Providence, RI 02912, USA*
- M.P. NIELSEN, *Structural Research Laboratory, Technical University of Denmark, Lundtoftevej 100, Bygning 118, DK-2800 Lyngby, Denmark*
- A.K. NOOR, *University of Virginia, Langley Research Center, Hampton, VA 23665, USA*

- R. OHAYON, *ONERA, B.P. 72, 29, Ave. de la Division Leclerc, F-92322 Châtillon Cedex, France*
- P.J. PAHL, *Technische Universität Berlin, Institut für Allgemeine Bauingenieurmethoden, Strasse des 17. Juni 135-EB433, W-1000 Berlin 12, Germany*
- B. PAUL, *University of Pennsylvania, Civil and Urban Engineering, Mechanical Engineering and Mechanics, Philadelphia, PA 19104, USA*
- R. PEYRET, *Département de Mathématiques, Université de Nice, Parc Valrose, 06034 Nice Cédex, France*
- J. PLANCHARD, *Département M.M.N., Electricité de France, 1, Avenue du General de Gaulle, F-92141 Clamart, France*
- A.R.S. PONTER, *Department of Engineering, University of Leicester, University Road, Leicester LE1 7RH, UK*
- QIAN Ling-xi (L.H. Tsien), *Dalian Institute of Technology, Dalian 116024, People's Republic of China*
- A.K. RAO, *Indian Institute of Science, Department of Aeronautical Engineering, Bangalore-12, India*
- M. REISER, *IBM Research Laboratory Zürich, Säumerstrasse 4, CH-8803, Rüschlikon, Switzerland*
- E. RIKS, *Faculty of Aerospace Engineering, Delft University of Technology, P.O. Box 5858, 2600 GB, Delft, The Netherlands*
- P.J. ROACHE, *Ecodynamics Research Associates, Inc., P.O. Box 8172, Albuquerque, NM 87198, USA*
- W.P. RODDEN, *255 Starlight Crest Drive, La Canada, CA 91011; USA*
- G.I.N. ROZVANY, *Fachbereich Bauwesen, Universität Essen, Postfach 10 37 64, W-4300 Essen 1, Germany*
- W. SCHIEHLEN, *Institut B für Mechanik, Universität Stuttgart, Pfaffenwaldring 9, W-7000 Stuttgart 80, Germany*
- B. SCHÖNUNG, *ABB Turbo Systems AG, Abteilung Forschung und Entwicklung, Thermische Maschinen (ZXE), CH-5401 Baden, Switzerland*
- H.R. SCHWARZ, *Wiesliacher 9, CH-8053, Zürich, Switzerland*
- P.S. SYMONDS, *Department of Engineering, Brown University, Providence, RI 02912, USA*
- A.B. TEMPLEMAN, *Department of Civil Engineering, University of Liverpool, P.O. Box 147, Liverpool L69 3BX, UK*
- C.W. TROWBRIDGE, *Vector Fields Limited, 24 Bankside, Kidlington, Oxon OX5 1JE, UK*
- J.R. WHITEMAN, *Institute of Computational Mathematics, Brunel University, GB-Uxbridge, Middlesex UB8 3PH, UK*
- K.J. WILLAM, *Department of Civil Engineering, University of Colorado, Campus Box 428, Boulder, CO 80309, USA*
- Y. YAMADA, *NAPRA, 5-29-313, Akasaka 9 Chome, Minato-ku, Tokyo 107, Japan*
- Th. ZIMMERMANN, *Institut d'Economie et Aménagements Energetiques (IENER), Ecole Polytechnique Fédérale de Lausanne, CH-1015 Lausanne, Switzerland*

M

L

0

2

02

I

# COMPUTER METHODS in APPLIED MECHANICS AND ENGINEERING

## EDITORS

**J.H. ARGYRIS** (Principal Editor)  
*Institut für Computer Anwendungen*  
*Pfaffenwaldring 27*  
*W-7000 STUTTGART 80*  
*Germany*

or

*Department of Aeronautics*  
*Imperial College of Science and Technology*  
*University of London*  
*Prince Consort Road*  
*LONDON S.W. 7*  
*UK*

**T.J.R. HUGHES**  
*Division of*  
*Applied Mechanics*  
*Durand Building*  
*Room No. 281*  
*Stanford University*  
*STANFORD*  
*CA 94305-4040, USA*

**J.T. ODEN**  
*TICOM*  
*3500 West Balcones*  
*Center Drive*  
*AUSTIN*  
*TX 78759, USA*

Cumulative Index of Volumes 1-100



**NORTH-HOLLAND**

Amsterdam - London - New York - Tokyo

© 1993 Elsevier Science Publishers B.V. All rights reserved

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the publisher, Elsevier Science Publishers B.V., Copyright and Permissions Department, P.O. Box 521, 1000 AM Amsterdam, The Netherlands.

*Special regulations for authors* – Upon acceptance of an article by the journal, the author(s) will be asked to transfer copyright of the article to the publisher. This transfer will ensure the widest possible dissemination of information.

*Special regulations for readers in the USA* – This journal has been registered with the Copyright Clearance Center, Inc. Consent is given for copying of articles for personal or internal use, or for the personal use of specific clients. This consent is given on the condition that the copier pays through the Center the pre-copy fee stated in the code on the first page of each article for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. The appropriate fee should be forwarded with a copy of the first page of the article to the Copyright Clearance Center, Inc., 27 Congress Street, Salem, MA 01970, USA. If no code appears in an article, the author has not given broad consent to copy and permission to copy must be obtained directly from the author. All articles published prior to 1981 may be copied for a pre-copy fee of US \$2.25, also payable through the Center. This consent does not extend to other kinds of copying, such as for general distribution, resale, advertising and promotion purposes, or for creating new collective works. Special written permission must be obtained from the publisher for such copying.

No responsibility is assumed by the Publisher for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein. Although all advertising material is expected to conform to ethical standards, inclusion in this publication does not constitute a guarantee or endorsement of the quality or value of such product or of the claims made of it by its manufacturer.

This volume is printed on acid-free paper.

## Preamble

### Retrospective recollection and inspirational outlook

I have been asked by our publishers to contribute a preamble to the Cumulative Index of Volumes 1-100 of our Journal. It is indeed hard to believe that the first number appeared as recently as June 1972, just short of twenty years ago. More astonishing is that in the first two years 1972 and 1973, only one volume could be published in each year. Switching, however, forward to the year 1993, I can inform our readers that 9 volumes will appear. This demonstrates the stormy development that has taken place in the evolution of the main thematic topic of our Journal: the exploration of the computer simulation of complex physical and technical problems. We should remember, however, that the revolution in our thinking processes and their application to problems of industry was initiated as far back as in the closing years of World War II under the impact of the first appearance of electromechanical computing devices in the United Kingdom and the United States and the conception of alternative new formulations of mechanics. But it is equally important to recollect that practically all efforts in the first twenty years or so in engineering computing science (say until 1963 or so) were directed towards the solution of problems in solid mechanics, e.g. those arising in plates, shells, wings, fuselages, etc. But the real revolution was actuated – and this is indeed in general unknown – through the then extremely severe problem of the structural safety of swept-back wings which, for aerodynamic reasons, had to be provided for fighter aircraft under jet propulsion in the last two years of World War II; these combat aircraft were designed for high subsonic speeds. Initial thoughts on a suitable theoretical framework, far removed from the clumsy and inefficient relaxation methods of the late thirties, were first generated in 1944 and led to the birth of the so-called matrix displacement method and the conception of a triangular membrane element (a true *deus ex machina* for swept-back wings, now a standard component of the finite element method) as well as the first matrix software codes in the UK and shortly afterwards (and no doubt independently so) in the USA. Germany did not then participate in this mental revolution. This preoccupation with structural problems, novel and significant as they were in aeronautics, was dictated by the slow speed and restricted memory of the first digital computers. On the other hand, major breakthroughs in the non-linear analysis of structures were already achieved in the late fifties by the inventive definition of a geometrical stiffness – which proved highly successful in instability and large deflection problems – and the concept of initial load or initial strain, which made possible the analysis of structures possessing non-linear material properties, e.g. plasticity, viscosity. Effective solutions to such problems were developed in the late fifties in the UK and the USA. An excellent presentation of the state of the art was given in 1965 at the exhilarating Dayton-Ohio Conference on Matrix Methods in Structural Mechanics organised by John S.



Przemieniecki, which proved a landmark in the development of computer mechanics in the solid domain.

But already in the mid-sixties, the necessity of developing CFD beyond the then available finite difference schemes became increasingly urgent and led to the development of techniques in the subsonic regime mainly based on FEM and BEM. This evolution was activated through the appearance of faster and more powerful digital computers. In particular, machines like the CD 6600 and CD 7600 greatly accelerated the developments and generated a stream of publications towards our Journal.

In the preceding paragraphs, our thoughts were mainly focused on the past history of the Journal. However, a scientific Journal lives and prospers only through daring excursions into novel research activities. In fact, our Journal published in the past years a number of distinguished papers on reentry aerodynamics of space shuttles – but more of this later. Other aerodynamic problems were also discussed.

The preceding remarks were intended to demonstrate how novel fields of research necessitate a continuing realignment of editorial policy. Thus, it may be pertinent to point out that the FEM has conditioned a mental revolution in the transformation of engineering sciences but may at the same time have reached the limits of its applicability in certain areas like CFD, in particular in the presence of turbulence. New simulation techniques and concepts are urgently called for. This is a major challenge to authors and editors alike.

Indeed, we are happy to report that Computational Fluid Dynamics has been a rapidly growing field of scientific and engineering interest over the last twenty years or so. We mentioned above that such developments were closely associated with the availability of even faster and more powerful digital computers. In this evolution, steady-state methods based on potential or stream functions were evolved, using first Cartesian and subsequently body fitted grids. Such formulations were found useful in the application of the finite element method to the elliptic, subsonic regime. Moreover, finite difference and finite volume techniques were developed in the unsteady regime but were essentially restricted to a one-dimensional regime. As a result of the continuously increasing computer power, extensions of FEM permitted the steady and unsteady solution of two-dimensional problems using initially the Euler equations and subsequently also the Navier–Stokes equations. The finite element method has in particular been applied to incompressible and compressible viscous flow. Modifications of the Navier–Stokes equations made it possible to include effects of turbulences via a system of time-averaged equations.

The revolutionary appearance of vector computers in the eighties at last gave us the computing tools to solve two- and three-dimensional problems using increasingly fine grids. Initially, these architectures favoured explicit time-stepping schemes which proved easy to vectorise. Subsequently, new strategies for the vectorisation of solution techniques also improved greatly.

Although first attempts for a direct numerical solution of turbulent flows have been initiated, even the most efficient present day computers are not in a position to compute a fully turbulent flow within a prescribed simple geometry. New simulation techniques and the evolution of parallel computer architectures possessing sophisticated software are required to find a solution to such complex problems. Although the FEM achieved triumphant results for laminar regimes and facilitated the analysis of reentry flights by the incorporation of real gas effects, its scientific limits are clearly discernible as mentioned above. Of course, we have to recognise again that the FEM has achieved very fine results for compressible flow problems in



hypersonic aerodynamics due to its inherent capabilities to handle unstructured meshes and adaptive mesh refinements. Several techniques have been evolved and applied with signal success in the past years. From the mathematical point of view, the FEM undeniably provides a secure philosophical foundation, but in the presence of compressibility, it does not yet permit a consistent application of this fundamental advantageous framework.

Focusing our attention once more on the hypersonic regime, we have to point out another conceptual limitation of present day CFD techniques. Thus, we note that the current FEM applies in the hypersonic regime a linear approximation within each element and consequently provides a solution which does not differ essentially from that of the finite volume technique. At the same time, finite volume and finite difference methods compensate their deficiency in the realm of unstructured meshes and adaptive mesh refinement as well as in the simplicity of boundary conditions by offering in contrast a high sophistication through so-called high resolution schemes. Although successful attempts have been made, the consistent application of such strategies to FEM is by no means straightforward.

To appreciate the complexity and magnitude of the simulation process in the extreme case of hypersonic aerodynamics, consider, for example, a reentry of a space shuttle, including, moreover, dissociation and reassociation processes of the air. Thus, at a first rough estimate at  $M = 25$  at an altitude of 75 km, a typical grid of a finite element scheme possesses 589 865 unknowns (symmetrical re-entry manoeuvre). This number is, however, increased to a multiple if the dissociation process as well as the viscous transport processes in the air are included. Let us also admit that this computing simulation is still incomplete if we do not also include the effects of turbulence at least over part of the air stream. Moreover, the above considerations apply strictly to the case of stationary aerodynamics whilst we now have to consider the necessity of a numerical analysis of instationary aerodynamics in which remarkable progress has already been achieved. It is clear from this account that such major tasks cannot be efficiently solved on existing vector supercomputers like the Cray 2 and the NEC machines and their immediate successors but demand parallel computational configurations of the highest sophistication as initiated in the USA, Japan and Europe. It must be admitted, however, that the efficient and philosophically sound design of parallel software is still in its infancy.

Two further examples serve to underline the necessity of such developments. The first refers to superplastic forming processes. The aerospace industry is striving increasingly to produce high-quality component parts, such as satellite tanks, using superplastic forming. On commission from Aerospatiale of France, a novel FEM methodology was evolved in the early eighties specifically for the simulation of superplastic forming processes and has been applied successfully to a number of aerospace structural components. More recent developments realise superplastic forming processes by means of numerical simulation and significantly so by the optimisation of the forming pressure to achieve a minimum processing time as well as the determination of the initial thickness profile of a given sheet for a net-shape forming process. Such simulation processes and other related investigations like those of thermally coupled forging processes may require 50 hours of CPU time on a Cray 2, the turn around time being four or five times larger. The computational effort is similar in the aerothermodynamics of a complete – relatively simple – flying configuration like the Hermes space shuttle. And yet the numerical simulation of combustion processes requires even higher computer capacities, which can only be achieved through highly parallelised novel computer configurations as they are being developed presently.

The aforementioned combustion processes possess an increasingly significant and critical environmental significance. In fact, we are expected to attain higher combustion temperatures in order to improve the combustion processes. The aim is not only an increased energy yield but also a drastic reduction of pollutant emissions. The Swiss firm ELCO Energy Systems, which, together with its European subsidiaries, covers a significant part of the heating and industrial combustion market in Western Europe, sees an obligation to tackle this problem in a fundamental and long-term way. Moreover, it has been recognised that only novel physical and numerical techniques can lead to major innovative results. The set task includes the realistic simulation of combustion processes in turbulent three-dimensional gas and two-phase flows and the optimum conception of the combustion chamber geometry as well as the thermally highly loaded materials. A novel simulation programme is being designed specifically for the exploitation of compact high-performance parallel computers.

The above topic brings us to the evolution of a future computer-based materials science and the provision of new materials like ceramic coatings. Such design tasks can again only be realised with the aid of novel computer simulations. Increased performance of turbine aero engines, for example, can only be attained by higher gas temperatures which exceed the thermal stress capacity of the current turbine blades. To protect such blades, ceramic coatings have to be sprayed onto the surfaces by means of a plasma beam. Due to the production process, the result is a complex material layer structure with porosities, the thermomechanical resistance of which is unknown; yet it is decisive to elucidate and quantify its nature in order to safeguard the service of the component. The same problem also arises in the automotive industry where ceramic-coated lightweight pistons are to be exposed to higher temperatures in the combustion engines. Especially the computer simulation of the coating process on the one hand and the determination of the thermomechanical behaviour of the coating on the other hand necessitate the development of novel computational methods which do not rely only on FEM, but also on alternative simulation (fractal) techniques. Such methods have to account for the statistically random distribution and growth of flaws and fissures as well as the evolution of residual stresses.

Our preamble can only spotlight a few problem areas which have to be solved effectively and economically through the evolution of new simulation techniques and modern parallel computer devices if supported by highly imaginative software. To reflect and propagate such progress remains the noble task of this Journal. We can only hope that a new anniversary like a forthcoming 200th volume will demonstrate that, within a few years, some of our expectations have been fulfilled.

We can only hope that our condensed account will encourage old and new authors alike to partake in this eternal race to a momentary perfection. Inevitably, our survey reflects to a certain extent personal preferences and experiences of the editorial board. In this sense, we selected CFD and pointed out some of its intriguing major problems which demand and have not found yet an advanced application on present day and future computing devices. Similar considerations apply to the computer evolution of materials science. These two domains of CFD and material science associated with an inventive application of parallel devices will certainly occupy this Journal over the next 10 years or so. These scientific aspects also demonstrate how the interests and unsolved problems which occupy the mind of authors and editorial board alike change (and have to change continuously) the scientific orientation of a journal as long as the editorial board is determined to remain at the top of the league.

However, there is still another major field which will occupy us: this concerns the explosively developing theory of chaos and its scientific and industrial applications. That this necessitates a highly sophisticated computer simulation we need not even emphasize. The theory of chaos has emerged with such explosive force and imaginative vigour following the pioneering findings of E.M. Lorenz who wrote a classic paper in 1963 on the evolutions in a Rayleigh-Bénard layer selected to simulate the meteorological response of the atmosphere. This publication demonstrated first that deterministic systems may respond chaotically, this being expressed by the appearance in the phase space of the now famous strange attractors. Indeed, this paper initiated a new era. In fact, many leading physicists but also engineers are of the opinion that the theory of chaos is *the* science of the next century. Clearly, a journal like ours has to direct its attention to this and other novel manifestations of computer science. There is also no doubt that the understanding of chaos will be one of the most significant keys to the unravelling of the mysteries of turbulence. Such research inquiries will lead to new computer simulations, for example in CFD, including ab initio the effects of possible turbulence. We hope that our authors will contribute energetically to such novel scientific findings and publications.

There is no doubt that the FEM proved superior to other techniques in adapting to complex configurations and boundary conditions in physical problems; at the same time, however, the FEM technique involves higher computing times than, for example, the finite difference technique. Thus, we have to realise the verdict of history "*Τά πάντα ρεῖ*" and the consequent necessity of reassessing past attitudes. We wish our readers the greatest success in helping us to unravel some of the unsolved problems of engineering science.

We on the editorial board have to accept that this necessitates very imaginative efforts, not only on the scientific side. We have to admit that without the devoted support of the members of the confraternity of our publishing editors and of the devoted work of the desk editors of our Publishing House in Amsterdam, such success and speed of action cannot be maintained over long periods of time.

In the course of the 20 years or so, we had the support of an array of superb publishing editors like the then director Wim Wimmers of North Holland and his successors Einar Frederiksson, Arjen Sevenster, Arie Jongejan, Bas van der Hoek, Hans van der Nat and Mark Eligh.

To all those, we express our deeply felt gratitude for their devoted and imaginative support and for having guided the editorial board with such steady hand. Particular thanks are expressed to the magnificent Ineke Kolen who with unflappability and a penetrating mind supports us smoothly in our difficult task. Wim Wimmers, who initiated us in the art of journal publishing, demonstrated to us how such a venture can lead to a steady success in science and engineering and also be economically viable. A special expression of gratitude is also extended to the last two members of the publishing editors Hans van der Nat and Mark Eligh who understood our problems, helped in many difficult situations and also became good friends of the editorial board.

Ultimately, we remember our guardian angel, the editorial secretary Marlies Parsons, who guided us with Swiss clockwork precision through many stormy days.

John Argyris

M

L

0

'2

92

II

## Cumulative Author Index of Volumes 1-100

1. Abarbanel, S. and M. Goldberg, A test problem for numerical schemes for nonlinear hyperbolic equations 8 (1976) 331- 334
2. Abdullah, A.R. and D.J. Evans, A weighted group explicit method for the diffusion equation 55 (1986) 221- 238
3. Aboudi, J. and Y. Weitsman, A numerical solution for the problem of an impacted fiber-reinforced viscoelastic half-space 4 (1974) 349- 366
4. Aboudi, J. and Y. Benveniste, The nonlinear Lamb problem 6 (1975) 319- 333
5. Aboudi, J., Two-dimensional wave propagation in a nonlinear elastic half-space 9 (1976) 25- 46
6. Aboudi, J., Numerical solution of dynamic stresses induced by moving cracks 9 (1976) 301- 316
7. Aboudi, J., The dynamic stresses induced by moving interfacial cracks 10 (1977) 303- 323
8. Aboudi, J., The dynamic contact stresses caused by the impact of a nonlinear elastic half-space by an axisymmetrical projectile 13 (1978) 189- 204
9. Aboudi, J., The dynamic stresses induced by the propagation of skew cracks 15 (1978) 181- 199
10. Aboudi, J., The dynamic indentation and impact of a viscoelastic half-space by an axisymmetric rigid body 20 (1979) 135- 150
11. Aboulaich, R. and M. Fortin, Iterative methods for the solution of Stokes equations 75 (1989) 317- 324
12. Absi, E. and W. Prager, A comparison of equivalence and finite element methods 6 (1975) 59- 64
13. Achenbach, J.D., G.E. Kechter and Y.-L. Xu, Off-boundary approach to the boundary element methods 70 (1988) 191- 201
14. Adam, J.C., A. Gourdin Serveniére, J.C. Nedelec and P.A. Raviart, Study of an implicit scheme for integrating Maxwell's equations 22 (1980) 327- 346
15. Adin, M.A., D.Z. Yankelevsky and M. Eisenberger, Analysis of beams on bi-moduli elastic foundation 49 (1985) 319- 330
16. Adjedj, G. and D. Aubry, Development of a hierarchical and adaptive finite element software 75 (1989) 153- 165
17. Adjerid, S. and J.E. Flaherty, A moving-mesh finite element method with local refinement for parabolic partial differential equations 55 (1986) 3- 26
18. Agrawal, O.P. and A.A. Shabana, Application of deformable-body mean axis to flexible multibody system dynamics 56 (1986) 217- 245
19. Ahmadi-Befrui, B., A.D. Gosman, R.I. Issa and A.P. Watkins, EPISO - An implicit non-iterative solution procedure for the calculation of flows in reciprocating engine chambers 79 (1990) 249- 279
20. Aida, T., Application of extended Galerkin's method to nonconservative stability problems of the columns with thin-walled open cross-section 54 (1986) 1- 20



21. Akhtar, M.N. and P.K. Basu, A new  $p$ -version general plate finite element 85 (1991) 219- 236
22. Alart, P. and A. Curnier, A mixed formulation for contact problems prone to Newton like solution methods 92 (1991) 353- 375
23. Alba, R., A. Oliva, C.D. Pérez Segarra and M. Costa, Numerical simulation of the thermal behaviour of heat exchangers and storage devices using multilevel and ADI techniques 91 (1991) 1203-1218
24. Alduncin, G. and I. Herrera, Contribution to free boundary problems using boundary elements: Trefftz approach 42 (1984) 257- 271
25. Alduncin, G., Duality and variational principles of potential boundary value problems 64 (1987) 469- 485
26. Alduncin, G., Subdifferential and variational formulations of boundary value problems 72 (1989) 173- 186
27. Ali, A.H.A., G.A. Gardner and L.R.T. Gardner, A collocation solution for Burgers' equation using cubic B-spline finite elements 100 (1992) 325- 337
28. Al-Khaiat, H., Initial-value analysis of continuous orthotropic plates 69 (1988) 153- 165
29. Alliney, S. and A. Tralli, Extended variational formulations and F.E. models for nonlinear beams under nonconservative loading 46 (1984) 177- 194
30. Alliney, S. and A. Tralli, 'Extended' variational formulations and f.e. models for nonlinear non-conservative mechanical problems 51 (1985) 209- 219
31. Alujevic, A., G. Kuhn and P. Skerget, Boundary elements for the solution of Navier-Stokes equations 91 (1991) 1187-1201
32. Alvarez Vigil, A.E., C. González Nicieza and J.B. Ordieres Meré, Numerical solution of an optimal shape design problem with elastic solids 99 (1992) 147- 170
33. Alvarez-Vazquez, L.J. and P. Quintela-Estevéz, The effect of different scalings in the modelling of nonlinearly elastic plates with rapidly varying thickness 96 (1992) 1- 24
34. Amara, M., P. Joly and J.M. Thomas, A mixed finite element method for solving transonic flow equations (see also 39 (1983) 19) 39 (1983) 1- 18
35. Amini, S. and D.T. Wilton, An investigation of boundary element methods for the exterior acoustic problem 54 (1986) 49- 65
36. Amini, S. and P.J. Harris, A comparison between various boundary integral formulations of the exterior acoustic problem 84 (1990) 59- 75
37. Anagnostou, G., E.M. Rønquist and A.T. Patera, A computational procedure for part design 97 (1992) 33- 48
38. Anand, S.C. and R.H.H. Shaw, Use of LST elements in elastic-plastic solutions 15 (1978) 1- 12
39. Anastasselou, E.G. and N.I. Ioakimidis, On the location of straight discontinuity intervals of arbitrary sectionally analytic functions by using complex path-independent integrals 65 (1987) 165- 176
40. Ando, S. and M. Kato, An adaptive method to treat number-sequences occurring in lifting surface calculations 43 (1984) 103- 114
41. Ando, S. and M. Kato, An improved kernel function computation in subsonic unsteady lifting surface theory 49 (1985) 343- 355
42. Andreaus, U. and A. Sawczuk, Deflection of elastic-plastic frames at finite spread of yielding zones 39 (1983) 21- 35

43. Andreaus, U. and P. D'Asdia, Displacement analysis in elastic-plastic frames at plastic collapse 42 (1984) 19- 35
44. Angrand, F. and P. Leyland, Compressible viscous flow simulation by multigrid methods 75 (1989) 167- 183
45. Antoniadis, I. and A. Kanarachos, Decoupling procedures for fluid-structure interaction problems 70 (1988) 1- 25
46. Apelt, C.J. and L.T. Isaacs, On the estimation of the optimum accelerator for SOR applied to finite element methods 12 (1977) 383- 391
47. Appa, K., Recent advances in maneuver loads analysis 90 (1991) 693- 717
48. Argyris, J.H. and D.W. Scharpf, Matrix displacement analysis of shells and plates including transverse shear strain effects 1 (1972) 81- 139
49. Argyris, J.H. and N. Lochner, On the application of the SHEBA shell element 1 (1972) 317- 347
50. Argyris, J.H., P.C. Dunne and T. Angelopoulos, Non-linear oscillations using the finite element technique 2 (1973) 203- 250
51. Argyris, J.H., T. Angelopoulos and B. Bichat, A general method for the shape finding of lightweight tension structures 3 (1974) 135- 149
52. Argyris, J.H., P.C. Dunne, T. Angelopoulos and B. Bichat, Large natural strains and some special difficulties due to non-linearity and incompressibility in finite elements 4 (1974) 219- 278
53. Argyris, J.H. and O.E. Brønlund, The natural factor formulation of the stiffness for the matrix displacement method 5 (1975) 97- 119
54. Argyris, J.H., T.L. Johnsen, R.A. Rosanoff and J.R. Roy, On numerical error in the finite element method 7 (1976) 261- 282
55. Argyris, J.H., G. Faust and K.J. Willam, Limit load analysis of thick-walled concrete structures - A finite element approach to fracture 8 (1976) 215- 243
56. Argyris, J.H., P.C. Dunne, T.L. Johnsen and M. Müller, Linear systems with a large number of sparse constraints with applications to incompressible materials 10 (1977) 105- 132
57. Argyris, J.H., K.S. Pister, J. Szimmat and K.J. Willam, Unified concepts of constitutive modelling and numerical solution methods for concrete creep problems 10 (1977) 199- 246
58. Argyris, J.H., P.C. Dunne, G.A. Malejannakis and E. Schelkle, A simple triangular facet shell element with applications to linear and non-linear equilibrium and elastic stability problems 10 (1977) 371- 403
59. Argyris, J.H., P.C. Dunne, G.A. Malejannakis and E. Schelkle, A simple triangular facet shell element with applications to linear and non-linear equilibrium and elastic stability problems (Continued from 10 (1977) 371-403) 11 (1977) 97- 131
60. Argyris, J.H. and M. Kleiber, Incremental formulation in nonlinear mechanics and large strain elasto-plasticity - Natural approach. Part I 11 (1977) 215- 247
61. Argyris, J.H., L.E. Vaz and K.J. Willam, Higher order methods for transient diffusion analysis 12 (1977) 243- 278
62. Argyris, J.H., P.C. Dunne and M. Müller, Isochoric constant strain finite elements 13 (1978) 245- 278
63. Argyris, J.H., J.S. Doltsinis and M. Kleiber, Incremental formulation in nonlinear mechanics and large strain elasto-plasticity - natural approach. Part II 14 (1978) 259- 294

64. Argyris, J.H., P.C. Dunne and D.W. Scharpf, On large displacement-small strain analysis of structures with rotational degrees of freedom 14 (1978) 401- 451
65. Argyris, J.H., P.C. Dunne, G.A. Malejannakis and D.W. Scharpf, On large displacement-small strain analysis of structures with rotational degrees of freedom (Continued from 14 (1978) 401-451) 15 (1978) 99- 135
66. Argyris, J.H., T.L. Johnsen and H.-P. Mlejnek, On the natural factor in nonlinear analysis 15 (1978) 365- 388
67. Argyris, J.H., P.C. Dunne and M. Müller, Note on large strain applications of modified constant strain finite elements 15 (1978) 389- 405
68. Argyris, J.H., L.E. Vaz and K.J. Willam, Improved solution methods for inelastic rate problems 16 (1978) 231- 277
69. Argyris, J.H., P.C. Dunne, M. Haase and J. Orkisz, Higher-order simplex elements for large strain analysis - natural approach 16 (1978) 369- 403
70. Argyris, J.H., H. Balmer, J.S. Doltsinis, P.C. Dunne, M. Haase, M. Kleiber, G.A. Malejannakis, H.-P. Mlejnek, M. Müller and D.W. Scharpf, Finite element method - the natural approach 17/18 (1979) 1- 106
71. Argyris, J.H., J.S. Doltsinis, W.C. Knudson, L.E. Vaz and K.J. Willam, Numerical solution of transient nonlinear problems 17/18 (1979) 341- 409
72. Argyris, J.H., T.L. Johnsen and H.-P. Mlejnek, On accurate stress calculation in static and dynamic problems using the natural factor approach 19 (1979) 277- 308
73. Argyris, J.H., O. Hilpert, G.A. Malejannakis and D.W. Scharpf, On the geometrical stiffness of a beam in space - a consistent V.W. approach 20 (1979) 105- 131
74. Argyris, J.H. and J.S. Doltsinis, On the large strain inelastic analysis in natural formulation - Part I: Quasistatic problems (Erratum, 21 (1980) 127-128) 20 (1979) 213- 251
75. Argyris, J.H. and J.S. Doltsinis, On the large strain inelastic analysis in natural formulation - Part II. Dynamic problems 21 (1980) 91- 126
76. Argyris, J.H., M. Haase and H.-P. Mlejnek, On an unconventional but natural formation of a stiffness matrix 22 (1980) 1- 22
77. Argyris, J.H., H. Balmer, M. Kleiber and U. Hindenlang, Natural description of large inelastic deformations for shells of arbitrary shape - application of TRUMP element 22 (1980) 361- 389
78. Argyris, J.H., P.C. Dunne, T.L. Johnsen and H.P. Mlejnek, A new iterative solution for structures and continua with very stiff or rigid parts 24 (1980) 215- 248
79. Argyris, J.H. and J.S. Doltsinis, On the natural formulation and analysis of large deformation coupled thermomechanical problems 25 (1981) 195- 253
80. Argyris, J.H. and S. Symeonidis, Nonlinear finite element analysis of elastic systems under nonconservative loading - natural formulation. Part I. Quasistatic problems 26 (1981) 75- 123
81. Argyris, J.H. and S. Symeonidis, A sequel to: Nonlinear finite element analysis of elastic systems under nonconservative loading - natural formulation. Part I. Quasistatic problems 26 (1981) 377- 383
82. Argyris, J.H., K. Straub and S. Symeonidis, Nonlinear finite element analysis of elastic systems under nonconservative loading - natural formulation. Part II. Dynamic problems 28 (1981) 241- 258



83. Argyris, J.H., M. Haase and H.P. Mlejnek, Some considerations on the natural approach 30 (1982) 335- 346
84. Argyris, J.H., J.S. Doltsinis, P.M. Pimenta and H. Wüstenberg, Thermomechanical response of solids at high strains - natural approach 32 (1982) 3- 57
85. Argyris, J.H., K. Straub and S. Symeonidis, Static and dynamic stability of nonlinear elastic systems under nonconservative forces - natural approach 32 (1982) 59- 83
86. Argyris, J.H., An excursion into large rotations 32 (1982) 85- 155
87. Argyris, J.H., J. Szimmat and K.J. Willam, Computational aspects of welding stress analysis 33 (1982) 635- 666
88. Argyris, J.H., B. Boni, U. Hindenlang and M. Kleiber, Finite element analysis of two- and three-dimensional elasto-plastic frames - the natural approach 35 (1982) 221- 248
89. Argyris, J.H. and H.H. Flüh, On the dynamic response of lightweight structures 38 (1983) 347- 369
90. Argyris, J.H. and M. Kleiber, Finite elements in non-associated plasticity - axisymmetric necking in void-containing materials 43 (1984) 325- 347
91. Argyris, J.H., J.S. Doltsinis, P.M. Pimenta and H. Wüstenberg, Natural finite element techniques for viscous fluid motion 45 (1984) 3- 55
92. Argyris, J.H. and J.S. Doltsinis, A primer on superplasticity in natural formulation 46 (1984) 83- 131
93. Argyris, J.H., J.S. Doltsinis, H. Fischer and H. Wüstenberg, *Τὰ πάντα δεῖ* 51 (1985) 289- 362
94. Argyris, J. and M. Haase, An engineer's guide to soliton phenomena: Application of the finite element method 61 (1987) 71- 122
95. Argyris, J., H. Balmer and I.S. Doltsinis, Implantation of a nonlinear capability on a linear software system 65 (1987) 267- 291
96. Argyris, J., H. Balmer and I.S. Doltsinis, Some thoughts on shell modelling for crash analysis 71 (1988) 341- 365
97. Argyris, J., I.S. Doltsinis and H. Friz, Hermes space shuttle: Exploration of reentry aerodynamics 73 (1989) 1- 51
98. Argyris, J., I.S. Doltsinis and H. Friz, Studies on computational reentry aerodynamics 81 (1990) 257- 289
99. Argyris, J., H. Balmer and I.S. Doltsinis, A simple but subtle model for the analysis of shell-like structures 85 (1991) 1- 20
100. Argyris, J., M. Haase and J.C. Heinrich, Finite element approximation to two-dimensional sine-Gordon solitons 86 (1991) 1- 26
101. Argyris, J., I.S. Doltsinis and V.D. da Silva, Constitutive modelling and computation of non-linear viscoelastic solids. Part I: Rheological models and numerical integration techniques 88 (1991) 135- 163
102. Argyris, J., I.S. Doltsinis, H. Friz and J. Urban, An exploration of chemically reacting viscous hypersonic flow 89 (1991) 85- 128
103. Argyris, J., G. Faust and M. Haase, *Χάος* - An adventure in chaos 91 (1991) 997-1091
104. Argyris, J. and J. Szimmat, An analysis of temperature radiation interchange problems 94 (1991) 155- 180
105. Argyris, J., A. Laxander and J. Szimmat, Petrov-Galerkin Finite Element approach to coupled heat and fluid flow 94 (1992) 181- 200

106. Argyris, J., I.S. Doltsinis and V.D. da Silva, Constitutive modelling and computation of non-linear viscoelastic solids. Part II: Application to PVC-coated fabrics 98 (1992) 159- 226
107. Arminjon, P. and C. Beauchamp, Numerical solution of Burgers' equations in two space dimensions 19 (1979) 351- 365
108. Arminjon, P. and C. Beauchamp, Continuous and discontinuous finite element methods for Burgers' equation (see also 28 (1981) 361-363) 25 (1981) 65- 84
109. Arminjon, P. and A. Rousseau, Discontinuous finite elements and Godunov-type methods for the Eulerian equations of gas dynamics 49 (1985) 17- 36
110. Arminjon, P. and L. Smith, Upwind finite volume schemes with anti-diffusion for the numerical study of electric discharges in gas-filled cavities 100 (1992) 149- 168
111. Arnold, D.N., I. Babuška and J. Osborn, Finite element methods: principles for their selection 45 (1984) 57- 96
112. Arnold, D.N., Mixed finite element methods for elliptic problems 82 (1990) 281- 300
113. Arora, J.S., Analysis of optimality criteria and gradient projection methods for optimal structural design 23 (1980) 185- 213
114. Arora, J.S. and G. Banziger, Uses of artificial intelligence in design optimization 54 (1986) 303- 323
115. Asaithambi, N.S., On a variable time-step method for the one-dimensional Stefan problem 71 (1988) 1- 13
116. Askar, H.G., Special elements for point singularities 63 (1987) 271- 280
117. Atamian, C., G.V. Dinh, R. Glowinski, J. He and J. Periaux, On some imbedding methods applied to fluid dynamics and electro-magnetics 91 (1991) 1271-1299
118. Athanasiadis, G., Direct and indirect boundary element methods for solving the heat conduction problem 49 (1985) 37- 54
119. Athanasiadis, G., Numerical investigations of direct and indirect integral equations for solving the heat conduction problem 49 (1985) 203- 220
120. Atkinson, C., L.S. Xanthis and M.J.M. Bernal, Boundary integral equation crack-tip analysis and applications to elastic media with spatially varying elastic properties 29 (1981) 35- 49
121. Atkočiūnas, J., A. Borkowski and J.A. König, Improved bounds for displacements at shakedown 28 (1981) 365- 376
122. Atluri, S.N., On constitutive relations at finite strain: Hypo-elasticity and elasto-plasticity with isotropic or kinematic hardening (see also 67 (1988) 125-127) 43 (1984) 137- 171
123. Auerbach, T., J.-P. Gandillon, W. Hälgl and J. Mennig, Analytical solution of  $S_4$ -equations in plane geometry 2 (1973) 133- 146
124. Auerbach, T. and J. Mennig, 3-Point Hermite integration of differential equations 76 (1989) 1- 15
125. Aufranc, M., Numerical study of a junction between a three-dimensional elastic structure and a plate 74 (1989) 207- 222
126. Awrejcewicz, J., Nonlinear dynamics of a two-body nonlinear mechanical system 91 (1991) 1093-1108
127. Axelsson, O., A class of iterative methods for finite element equations 9 (1976) 123- 137
128. Axelsson, O. and I. Gustafsson, Iterative methods for the solution of the Navier equations of elasticity 15 (1978) 241- 258

129. Axelsson, O. and I. Gustafsson, An iterative solver for a mixed variable variational formulation of the (first) biharmonic problem 20 (1979) 9- 16
130. Axelsson, O. and G.F. Carey, On the numerical solution of two-point singularly perturbed boundary value problems 50 (1985) 217- 229
131. Axelsson, O. and J. Maubach, On the updating and assembly of the Hessian matrix in finite element methods 71 (1988) 41- 67
132. Baaijens, F.P.T., Numerical analysis of unsteady viscoelastic flow 94 (1992) 285- 299
133. Babarsky, R.J. and H.G. Wood III, Approximate eigensolutions for non-axisymmetric rotating compressible flows 81 (1990) 317- 332
134. Babenko, K.I., Estimating the quality of computational algorithms - Part 1 7 (1976) 47- 73
135. Babenko, K.I., Estimating the quality of computational algorithms - Part 2 7 (1976) 135- 152
136. Babuska, I., J.T. Oden and J.K. Lee, Mixed-hybrid finite element approximations of second-order elliptic boundary-value problems 11 (1977) 175- 206
137. Babuška, I., J.T. Oden and J.K. Lee, Mixed-hybrid finite element approximations of second-order elliptic boundary value problems - Part 2 - Weak-hybrid methods 14 (1978) 1- 22
138. Babuska, I. and W.C. Rheinboldt, Adaptive approaches and reliability estimations in finite element analysis 17/18 (1979) 519- 540
139. Babuška, I. and W.G. Szymczak, An error analysis for the finite element method applied to convection diffusion problems 31 (1982) 19- 42
140. Babuška, I. and W.C. Rheinboldt, Computational error estimates and adaptive processes for some nonlinear structural problems 34 (1982) 895- 937
141. Babuška, I. and W. Gui, Basic principles of feedback and adaptive approaches in the finite element method 55 (1986) 27- 42
142. Babuška, I. and A. Miller, A feedback element method with a posteriori error estimation: Part I. The finite element method and some basic properties of the a posteriori error estimator 61 (1987) 1- 40
143. Babuška, I. and B.Q. Guo, The  $h$ - $p$  version of the finite element method for problems with nonhomogeneous essential boundary condition 74 (1989) 1- 28
144. Babuška, I. and M. Suri, The  $p$ - and  $h$ - $p$  version of the finite element method, An overview 80 (1990) 5- 26
145. Babuška, I., B.Q. Guo and E.P. Stephan, The  $h$ - $p$  version of the boundary element method with geometric mesh on polygonal domains 80 (1990) 319- 325
146. Babuška, I., The problem of modeling the elastomechanics in engineering 82 (1990) 155- 182
147. Babuška, I. and L. Li, The problem of plate modeling: Theoretical and computational results 100 (1992) 249- 273
148. Bachrach, W.E., W.K. Liu and R.A. Uras, A consolidation of various approaches in developing naturally based quadrilaterals 55 (1986) 43- 62
149. Bailey, C.D., The method of Ritz applied to the equation of Hamilton 7 (1976) 235- 247
150. Bailey, C.D., Vibration and local instability of thermally stressed plates 25 (1981) 263- 278
151. Bailey, C.D. and J.L. Haines, Vibration and stability of non-conservative follower force systems 26 (1981) 1- 31

152. Bailey, C.D. and R.D. Witchey, Harmonic motion of nonconservative, forced, damped systems subjected to nonpotential follower forces 42 (1984) 71- 88
153. Bailey, C.D., Dynamics and the calculus of variations 60 (1987) 275- 287
154. Baker, A.J., Finite element solution theory for three-dimensional boundary flows (Erratum, 5 (1975) 121-122) 4 (1974) 367- 386
155. Baker, A.J. and M.O. Soliman, On the accuracy and efficiency of a finite element tensor product algorithm for fluid dynamics applications 27 (1981) 215- 237
156. Baker, A.J., On current aspects of finite element computational fluid mechanics for turbulent flows 32 (1982) 261- 282
157. Baker, A.J., A finite element penalty algorithm for the parabolic Navier-Stokes equations for turbulent three-dimensional flow 46 (1984) 277- 293
158. Baker, A.J., On a penalty finite element CFD algorithm for high speed flow 51 (1985) 395- 420
159. Balakrishnan, A.V., Combined structures-controls optimization of lattice trusses 94 (1992) 131- 152
160. Balasubramanian, B., M. Svoboda and W. Bauer, Structural optimization of I.C. engines subjected to mechanical and thermal loads 89 (1991) 337- 360
161. Balasubramanian, S. and K.S.S. Iyer, System optimisation for random earthquake forces 31 (1982) 233- 235
162. Ballal, G., C.-H. Li, R. Glowinski and N.R. Amundson, Single particle char combustion and gasification 75 (1989) 467- 479
163. Balling, R.J., K.S. Pister and E. Polak, DELIGHT.STRUCT: An optimization-based computer-aided design environment for structural engineering 38 (1983) 237- 251
164. Balmer, H., J.S. Doltsinis and M. König, Elastoplastic and creep analysis with the ASKA program system 3 (1974) 87- 104
165. Balmer, H. and J.S. Doltsinis, Extensions to the elastoplastic analysis with the ASKA program system 13 (1978) 363- 401
166. Bamberger, A., Definition d'une methodologie de demonstration numerique d'existence de solutions d'equations elliptiques semi-lineaires 75 (1989) 3- 10
167. Bamberger, A., B. Cockburn, Y. Goldman, P. Joly and M. Kern, Numerical solutions of Maxwell's equations in a conductive and polarizable medium 75 (1989) 11- 25
168. Bank, R.E. and B.D. Welfert, A posteriori error estimates for the Stokes equations: A comparison 82 (1990) 323- 340
169. Bank, R.E. and B.D. Welfert, A comparison between the mini-element and the Petrov-Galerkin formulations for the generalized Stokes problem 83 (1990) 61- 68
170. Barba, A., G. Bergeles, I. Demirdzic, A.D. Gosman and B.E. Launder, The computation of flow in a spirally fluted tube 44 (1984) 49- 65
171. Barbosa, H.J.C. and T.J.R. Hughes, The finite element method with Lagrange multipliers on the boundary: Circumventing the Babuška-Brezzi condition 85 (1991) 109- 128
172. Barbosa, H.J.C. and T.J.R. Hughes, Circumventing the Babuška-Brezzi condition in mixed finite element approximations of elliptic variational inequalities 97 (1992) 193- 210

173. Bardet, J.P., Finite element analysis of surface instability in hypo-elastic solids 78 (1990) 273- 296
174. Barenghi, C.F., A spectral method for time modulated Taylor-Couette flow 80 (1990) 223- 227
175. Barone, M.R. and R.J. Yang, A boundary element approach for recovery of shape sensitivities in three-dimensional elastic solids 74 (1989) 69- 82
176. Barragy, E. and G.F. Carey, A partitioning scheme and iterative solution for sparse bordered systems 70 (1988) 321- 327
177. Barragy, E. and G.F. Carey, Preconditioners for high degree elements 93 (1991) 97- 110
178. Barrett, D. and A. Soler, A finite element model for thick beams 25 (1981) 299- 313
178. Barrett, J.W. and K.W. Morton, Approximate symmetrization and Petrov-Galerkin methods for diffusion-convection problems 45 (1984) 97- 122
180. Bartholomew, P., Solution of elastic crack problems by superposition of finite elements and singular fields 13 (1978) 59- 78
181. Bartholomew, R.W., Velocity field estimates and three-dimensional discrete vortex methods 71 (1988) 15- 29
182. Bar-Yoseph, P., On the accuracy of interlaminar stress calculation in laminated plates 36 (1983) 309- 329
183. Bathe, K.J. and A.P. Cimento, Some practical procedures for the solution of nonlinear finite element equations 22 (1980) 59- 85
184. Bathe, K.J. and S. Ramaswamy, An accelerated subspace iteration method 23 (1980) 313- 331
185. Bathe, K.-J., N.-S. Lee and M.L. Bucleam, On the use of hierarchical models in engineering analysis 82 (1990) 5- 26
186. Batra, R.L. and K. Koshy, Numerical solution of three-dimensional entrance flow of a Bingham material through noncircular ducts 19 (1979) 313- 332
187. Batra, R.L. and V.R. Sudarsan, Laminar flow heat transfer in the entrance region of concentric annuli for power law fluids 95 (1992) 1- 16
188. Batt, J.R. and S. Gellin, Rapid reanalysis by the force method 53 (1985) 105- 117
189. Battarra, V., C. Canuto and A. Quarteroni, A Chebyshev spectral method for gas transients in pipelines 48 (1985) 329- 352
190. Baumann, C.E., M.A. Storti and S.R. Idelsohn, A Petrov-Galerkin technique for the solution of transonic and supersonic flows 95 (1992) 49- 70
191. Baumgarte, J., Stabilization of constraints and integrals of motion in dynamical systems 1 (1972) 1- 16
192. Bayo, E., J. García de Jalón and M.A. Serna, A modified Lagrangian formulation for the dynamic analysis of constrained mechanical systems 71 (1988) 183- 195
193. Bayo, E., J. García de Jalón, A. Avello and J. Cuadrado, An efficient computational model for real time multibody dynamic simulation in fully cartesian coordinates 92 (1991) 377- 395
194. Bažant, Z.P., Spurious reflection of elastic waves in nonuniform finite element grids 16 (1978) 91- 100
195. Bègue, C., C. Bernardi, N. Debit, Y. Maday, G.E. Karniadakis, C. Mavriplis and A.T. Patera, Non-conforming spectral element-finite element approximations for partial differential equations 75 (1989) 109- 125
196. Behie, A., D. Collins and P. Forsyth, Jr., Incomplete factorization methods for three-dimensional non-symmetric problems 42 (1984) 287- 299



197. Belegundu, A.D. and J.S. Arora, A sensitivity interpretation of adjoint variables in optimal design 48 (1985) 81- 89
198. Belegundu, A.D. and S.D. Rajan, A shape optimization approach based on natural design variables and shape functions 66 (1988) 87- 106
199. Bellagamba, L., CONGAU - constrained minimization of least squares objective functions 16 (1978) 303- 311
200. Bellamy-Knight, P.G., M.G. Benson, J.H. Gerrard and I. Gladwell, Convergence properties of panel methods 76 (1989) 171- 178
201. Bellet, D. and M.C. Vinatier, Numerical spectral method for flows through aneurisms 63 (1987) 167- 182
202. Bello-Ochende, F.L., A heat function formulation for thermal convection in a square cavity 68 (1988) 141- 149
203. Belytschko, T., H.-J. Yen and R. Mullen, Mixed methods for time integration 17/18 (1979) 259- 275
204. Belytschko, T. and R. Mullen, Two-dimensional fluid-structure impact computations with regularization 27 (1981) 139- 154
205. Belytschko, T., C.S. Tsay and W.K. Liu, A stabilization matrix for the bilinear Mindlin plate element 29 (1981) 313- 327
206. Belytschko, T., D.P. Flanagan and J.M. Kennedy, Finite element methods with user-controlled meshes for fluid-structure interaction 33 (1982) 669- 688
207. Belytschko, T., J.I. Lin and C.-S. Tsay, Explicit algorithms for the nonlinear dynamics of shells 42 (1984) 225- 251
208. Belytschko, T., J.S.-J. Ong, W.K. Liu and J.M. Kennedy, Hourglass control in linear and nonlinear problems 43 (1984) 251- 276
209. Belytschko, T., J.S.-J. Ong and W.K. Liu, A consistent control of spurious singular modes in the 9-node Lagrange element for the Laplace and Mindlin plate equations 44 (1984) 269- 295
210. Belytschko, T., P. Smolinski and W.K. Liu, Stability of multi-time step partitioned integrators for first-order finite element systems 49 (1985) 281- 297
211. Belytschko, T., H. Stolarski, W.K. Liu, N. Carpenter and J.S.-J. Ong, Stress projection for membrane and shear locking in shell finite elements 51 (1985) 221- 258
212. Belytschko, T. and W.E. Bachrach, Efficient implementation of quadrilaterals with high coarse-mesh accuracy 54 (1986) 279- 301
213. Belytschko, T., W.K. Liu and J.S.-J. Ong, Mixed variational principles and stabilization of spurious modes in the 9-node element 62 (1987) 275- 292
214. Belytschko, T., J. Fish and B.E. Engelmann, A finite element with embedded localization zones 70 (1988) 59- 89
215. Belytschko, T. and J. Fish, Embedded hinge lines for plate elements 76 (1989) 67- 86
216. Belytschko, T., J. Fish and A. Bayliss, The spectral overlay on finite elements for problems with high gradients 81 (1990) 71- 89
217. Belytschko, T., E.J. Plaskacz, J.M. Kennedy and D.L. Greenwell, Finite element analysis on the CONNECTION machine 81 (1990) 229- 254
218. Belytschko, T. and L.P. Bindeman, Assumed strain stabilization of the 4-node quadrilateral with 1-point quadrature for nonlinear problems 88 (1991) 311- 340
219. Belytschko, T. and Y.Y. Lu, Stability analysis of elemental explicit-implicit partitions by Fourier methods 95 (1992) 87- 96

220. Belytschko, T. and Y.Y. Lu, A curvilinear spectral overlay method for high gradient problems 95 (1992) 383- 396
221. Belytschko, T., B.L. Wong and H.-Y. Chiang, Advances in one-point quadrature shell elements 96 (1992) 93- 107
222. Benallal, A., R. Billardon and J. Lemaitre, Continuum damage mechanics and local approach to fracture: Numerical procedures 92 (1991) 141- 155
223. Benantar, M., R. Biswas, J. Flaherty and M.S. Shephard, Parallel computation with adaptive methods for elliptic and hyperbolic systems 82 (1990) 73- 93
224. Bendsøe, M.P. and N. Kikuchi, Generating optimal topologies in structural design using a homogenization method 71 (1988) 197- 224
225. Bendsøe, M.P. and H.C. Rodrigues, Integrated topology and boundary shape optimization of 2-D solids 87 (1991) 15- 34
226. Benim, A.C. and W. Zinser, Investigation into the finite element analysis of confined turbulent flows using a  $k-\epsilon$  model of turbulence 51 (1985) 507- 523
227. Benim, A.C. and W. Zinser, A segregated formulation of Navier-Stokes equations with finite elements 57 (1986) 223- 237
228. Benim, A.C., A finite element solution of radiative heat transfer in participating media utilizing the moment method 67 (1988) 1- 14
229. Benkhaldoun, F. and B. Larrourou, A finite element adaptive investigation of curved stable and unstable flame front 76 (1989) 119- 134
230. Benson, D.J., An efficient, accurate, simple ALE method for nonlinear finite element programs 72 (1989) 305- 350
231. Benson, D.J., Vectorizing the right-hand side assembly in an explicit finite element program 73 (1989) 147- 152
232. Benson, D.J. and J.O. Hallquist, A single surface contact algorithm for the post-buckling analysis of shell structures 78 (1990) 141- 163
233. Benson, D.J., A new two-dimensional flux-limited shock viscosity for impact calculations 93 (1991) 39- 95
234. Benson, D.J., Vectorization techniques for explicit arbitrary Lagrangian-Eulerian calculations 96 (1992) 303- 328
235. Benson, D.J., Computational methods in Lagrangian and Eulerian hydrocodes 99 (1992) 235- 394
236. Bergan, P.G. and T. Søreide, A comparative study of different numerical solution techniques as applied to a nonlinear structural problem 2 (1973) 185- 201
237. Bergan, P.G. and I. Holand, Nonlinear finite element analysis of concrete structures 17/18 (1979) 443- 467
238. Bergan, P.G. and E. Mollestad, An automatic time-stepping algorithm for dynamic problems 49 (1985) 299- 318
239. Bergan, P.G. and C.A. Felippa, A triangular membrane element with rotational degrees of freedom 50 (1985) 25- 69
240. Bergman, C.M. and J.B. Vos, Parallelization of CFD codes 89 (1991) 523- 528
241. Bergman, L.A. and J.C. Heinrich, Petrov-Galerkin finite element solution for the first passage probability and moments of first passage time of the randomly accelerated free particle 27 (1981) 345- 362
242. Berković, M. and Z. Drašković, On the essential mechanical boundary conditions in two-field finite element approximations 91 (1991) 1339-1355

243. Bermúdez, A. and J. Fernández, Solving unilateral problems for beams by finite element methods 54 (1986) 67- 73
244. Bermúdez, A. and J. Durany, Numerical solution of steady-state flow through a porous dam 68 (1988) 55- 65
245. Bermúdez, A. and J. Durany, Numerical solution of cavitation problems in lubrication 75 (1989) 457- 466
246. Bernardi, C., G. Coppoletta, V. Girault and Y. Maday, Spectral methods for the Stokes problem in stream-function formulation 80 (1990) 229- 236
247. Bernardou, M., S. Fayolle and F. Léné, Numerical analysis of junctions between plates 74 (1989) 307- 326
248. Bernstein, B., M.K. Kadivar and D.S. Malkus, Steady flow of memory fluids with finite elements: Two test problems 27 (1981) 279- 302
249. Berry, M.W. and R.J. Plemmons, Algorithms and experiments for structural mechanics on high-performance architectures 64 (1987) 487- 507
250. Beskos, D.E. and G.V. Narayanan, Dynamic response of frameworks by numerical Laplace transform 37 (1983) 289- 307
251. Besseling, J.F., Non-linear analysis of structures by the finite element method as a supplement to a linear analysis 3 (1974) 173- 194
252. Besseling, J.F., Derivatives of deformation parameters for bar elements and their use in buckling and postbuckling analysis 12 (1977) 97- 124
253. Besseling, J.F., L.J. Ernst, K. Van Der Werff, A.U. De Koning and E. Riks, Geometrical and physical nonlinearities: some developments in the Netherlands 17/18 (1979) 131- 157
254. Besseling, J.F., Non-linear theory for elastic beams and rods and its finite element representation 31 (1982) 205- 220
255. Besterfield, G.H., W.K. Liu, M.A. Lawrence and T. Belytschko, Fatigue crack growth reliability by probabilistic finite elements 86 (1991) 297- 320
256. Bestle, D. and E. Kreuzer, A modification and extension of an algorithm for generalized cell mapping 59 (1986) 1- 9
257. Bhargava, R.D. and S.S. Puranik, Torsion problem for elastic cylinder with holes 21 (1980) 63- 74
258. Bhargava, R.D. and S. Puranik, Torsion problem for elastic cylinder with inserts and holes 23 (1980) 281- 291
259. Bhashyam, G.R. and R.H. Gallagher, A triangular shear-flexible finite element for moderately thick laminated composite plates 40 (1983) 309- 326
260. Biffle, J.H. and E.B. Becker, Finite element stress formulation for dynamic elastic-plastic analysis 6 (1975) 101- 119
261. Biffle, J.H. and S.W. Key, Finite element formulations for transient dynamic problems in solids using explicit time integration 12 (1977) 323- 336
262. Billey, V., J. Periaux, B. Stoufflet, A. Dervieux, L. Fezoui and V. Selmin, Recent improvements in Galerkin and upwind Euler solvers and applications to 3-D transonic flow in aircraft design 75 (1989) 409- 414
263. Blanchard, D. and P.G. Ciarlet, A remark on the von Kármán equations 37 (1983) 79- 92
264. Blottner, F.G., Variable grid scheme applied to turbulent boundary layers 4 (1974) 179- 194
265. Blottner, F.G., Investigation of some finite-difference techniques for solving the boundary layer equations 6 (1975) 1- 30



266. Blottner, F.G., Numerical solution of slender channel laminar flows 11 (1977) 319- 339
267. Boerstael, J.W. and S.P. Spekreyse, An information system for the numerical simulation of 3D Euler flows around aircraft 89 (1991) 237- 257
268. Bogomolnii, A., G. Eskin and S. Zuchowizkii, Numerical solution of the stamp problem 15 (1978) 149- 159
269. Boni, B. and M. Kleiber, Numerical plastic collapse analysis of plane bending-and-torque supporting grids 19 (1979) 1- 19
270. Boot, J.C. and D.B. Moore, An efficient analysis for thin plates of general quadrilateral shape subject to bending stresses 43 (1984) 57- 79
271. Borja, R.I. and S.R. Lee, Cam-Clay plasticity, Part 1: Implicit integration of elasto-plastic constitutive relations 78 (1990) 49- 72
272. Borja, R.I., One-step and linear multistep methods for nonlinear consolidation 85 (1991) 239- 272
273. Borja, R.I., Composite Newton-PCG and quasi-Newton iterations for nonlinear consolidation 86 (1991) 27- 60
274. Borja, R.I., Cam-Clay plasticity. Part II: Implicit integration of constitutive equation based on a nonlinear elastic stress predictor 88 (1991) 225- 240
275. Borja, R.I. and S.S. Kishnani, On the solution of elliptic free-boundary problems via Newton's method 88 (1991) 341- 361
276. Borkowski, A., Optimization of slab reinforcement by linear programming 12 (1977) 1- 17
277. Borkowski, A. and M. Kleiber, On a numerical approach to shakedown analysis of structures 22 (1980) 101- 119
278. Borri, M. and P. Mantegazza, Efficient solution of quadratic eigenproblems arising in dynamic analysis of structures 12 (1977) 19- 31
279. Bossavit, A. and M. Frémond, The frontal method based on mechanics and dynamic programming - An algebraic account 8 (1976) 153- 178
280. Bossavit, A., On the numerical analysis of eddy-current problems 27 (1981) 303- 318
281. Bossavit, A., Symmetry, groups, and boundary value problems. A progressive introduction to noncommutative harmonic analysis of partial differential equations in domains with geometrical symmetry 56 (1986) 167- 215
282. Bossavit, A., Simplicial finite elements for scattering problems in electromagnetism 76 (1989) 299- 316
283. Boston, D.R., K.D. Willmert and M. Sathyamoorthy, The development and application of the Gauss nonlinearly constrained optimization method 57 (1986) 17- 24
284. Bottaro, A., I.L. Rhyming, M.B. Wehrli, F.S. Rys and P. Rys, Laminar swirling flow and vortex breakdown in a pipe 89 (1991) 41- 57
285. Bottero, A., R. Negre, J. Pastor and S. Turgeman, Finite element method and limit analysis theory for soil mechanics problems 22 (1980) 131- 149
286. Boudourides, M.A. and J.A. Hitioglou, The variational inequality formulation of a unidirectional gravity-driven free-boundary flow 56 (1986) 83- 89
287. Bouloutas, E.T. and M.A. Celia, An improved cubic Petrov-Galerkin method for simulation of transient advection-diffusion processes in rectangularly decomposable domains 92 (1991) 289- 308
288. Bourgat, J.F., Numerical study of a dual iterative method for solving a finite element approximation of the biharmonic equation 9 (1976) 203- 218

289. Bourgeat, A., Homogenized behavior of two-phase flows in naturally fractured reservoirs with uniform fractures distribution 47 (1984) 205- 216
290. Bourquin, F. and F. d'Hennezel, Numerical study of an intrinsic component mode synthesis method 97 (1992) 49- 76
291. Boutros, Y.Z., M.B. Abd-el-Malek and S.Z. Masoud, Hilbert's method for numerical solution of flow from a uniform channel over irregular bottom topographies 65 (1987) 215- 228
292. Boutros, Y.Z., H. Mansour El-Saadany and I.A. El-Awadi, Infiltration from buried pipes in unsaturated soils 81 (1990) 173- 182
293. Bradley, D., M. Missaghi and S.B. Chin, A Taylor-series approach to numerical accuracy and a third-order scheme for strong convective flows 69 (1988) 133- 151  
44 (1984) 247- 267
294. Braibant, V. and C. Fleury, Shape optimal design using B-splines 53 (1985) 119- 148
295. Braibant, V. and C. Fleury, An approximation-concepts approach to shape optimal design 67 (1988) 149- 159
296. Bramble, J.H., R.E. Ewing, J.E. Pasciak and A.H. Schatz, A pre-conditioning technique for the efficient solution of problems with local grid refinement 36 (1983) 23- 37
297. Bratianu, C. and S.N. Atluri, A hybrid finite element method for Stokes flow: Part I - Formulation and numerical studies 91 (1991) 1403-1414
298. Brauchli, H. and R. Weber, Dynamical equations in natural coordinates 4 (1974) 1- 18
299. Braun, K.A. and T.L. Johnsen, Hypermatrix generalization of the Jacobi- and Eberlein-method for computing eigenvalues and eigenvectors of Hermitian or non-Hermitian matrices 3 (1974) 335- 347
300. Brazier, P.H., An optimum SOR procedure for the solution of elliptic partial differential equations with any domain or coefficient set 75 (1989) 325- 332
301. Brenier, Y., A combinatorial algorithm for the Euler equations of incompressible flows 80 (1990) 443- 450
302. Bressan, N. and D. Pavoni, Truncation versus mapping in the spectral approximation to the Korteweg-De Vries equation 73 (1989) 317- 330
303. Brezzi, F., C. Canuto and A. Russo, A self-adaptive formulation for the Euler/Navier-Stokes coupling 75 (1989) 493- 514
304. Brezzi, F., L.D. Marini and P. Pietra, Numerical simulation of semiconductor devices 82 (1990) 27- 57
305. Brezzi, F. and K.-J. Bathe, A discourse on the stability conditions for mixed finite element formulations 96 (1992) 117- 129
306. Brezzi, F., M.-O. Bristeau, L.P. Franca, M. Mallet and G. Rogé, A relationship between stabilized finite element methods and the Galerkin method with bubble functions 72 (1989) 243- 266
307. Briassoulis, D., The  $C^0$  shell plate and beam elements freed from their deficiencies 6 (1975) 233- 241
308. Briggs, D.G., A finite difference scheme for the incompressible advection-diffusion equation (see also 8 (1976) 357-360) 8 (1976) 359
309. Briggs, D.G., Author's reply to comment on: A finite difference scheme for the incompressible advection-diffusion equation (8 (1976) 357-358)

310. Bristeau, M.O., O. Pironneau, R. Glowinski, J. Periaux and P. Perrier, On the numerical solution of nonlinear problems in fluid dynamics by least squares and finite element methods - Part I. Least square formulations and conjugate gradient solutions of the continuous problems 17/18 (1979) 619- 657
311. Bristeau, M.O., O. Pironneau, R. Glowinski, J. P  riaux, P. Perrier and G. Poirier, On the numerical solution of nonlinear problems in fluid dynamics by least squares and finite element methods (II). Application to transonic flow simulations 51 (1985) 363- 394
312. Br  nlund, O.E. and T.L. Johnsen, *QR*-factorization of partitioned matrices - Solution of large systems of linear equations with non-definite coefficient matrices 3 (1974) 153- 172
313. Brooks, A.N. and T.J.R. Hughes, Streamline upwind/Petrov-Galerkin formulations for convection dominated flows with particular emphasis on the incompressible Navier-Stokes equations 32 (1982) 199- 259
314. Brown, P.R., A non-interactive method for the automatic generation of finite element meshes using the Schwarz-Christoffel transformation 25 (1981) 101- 126
315. Brown, R.A., R.C. Armstrong, A.N. Beris and P.-W. Yeh, Galerkin finite element analysis of complex viscoelastic flows 58 (1986) 201- 226
316. Bruneau, C.H., A non-conforming finite element method for solving a least-square formulation of Tricomi's problem 39 (1983) 117- 129
317. Brushlinsky, K.V., Numerical simulation of two-dimensional plasma flow in channels 6 (1975) 293- 307
318. Bufler, H., Generalized variational principles with relaxed continuity requirements for certain nonlinear problems, with an application to nonlinear elasticity 19 (1979) 235- 255
319. Bufler, H., On the work theorems for finite and incremental elastic deformations with discontinuous fields: a unified treatment of different versions 36 (1983) 95- 124
320. Bufler, H., Derivation of the variational inequalities and extremum principles of the frictionless elastic contact problem 53 (1985) 163- 182
321. Buragohain, D.N. and S.C. Patodi, A triangular finite difference scheme for large deflection problems 16 (1978) 313- 325
322. Burgess, G. and E. Mahajerin, A numerical method for laterally loaded thin plates 49 (1985) 1- 15
323. Cameron, R.F. and S. McKee, The direct numerical solution of a Volterra integral equation arising out of viscoelastic stress in materials 29 (1981) 219- 232
324. Campos, L.T., J.T. Oden and N. Kikuchi, A numerical analysis of a class of contact problems with friction in elastostatics 34 (1982) 821- 845
325. Cannarozzi, A.A., M. Capurso and F. Laudiero, An iterative procedure for collapse analysis of reinforced concrete plates 16 (1978) 47- 68
326. Cannarozzi, A.A., On the resolution of some unilaterally constrained problems in structural engineering 24 (1980) 339- 357
327. Cant  , E. and C. Cinquini, Iterative solutions for problems of optimal elastic design 20 (1979) 257- 266
328. Carcaillet, R., G.S. Dulikravich and S.R. Kennon, Generation of solution-adaptive computational grids using optimization 57 (1986) 279- 295

329. Cardona, A., M. Geradin and D.B. Doan, Rigid and flexible joint modelling in multibody dynamics using finite elements 89 (1991) 395- 418
330. Cardona, A. and M. Géradin, A superelement formulation for mechanism analysis 100 (1992) 1- 29
331. Cardot, B., F. Coron, B. Mohammadi and O. Pironneau, Simulation of turbulence with the  $k-\epsilon$  model 87 (1991) 103- 116
332. Caretto, L.S., R.M. Curr and D.B. Spalding, Two numerical methods for three-dimensional boundary layers 1 (1972) 39- 57
333. Carey, G.F., A unified approach to three finite element theories for geometric nonlinearity 4 (1974) 69- 79
334. Carey, G.F., A mesh-refinement scheme for finite element computations 7 (1976) 93- 105
335. Carey, G.F., An analysis of finite element equations and mesh subdivision 9 (1976) 165- 179
336. Carey, G.F., Variational principles for the transonic airfoil problem 13 (1978) 129- 140
337. Carey, G.F., Adaptive refinement and nonlinear fluid problems 17/18 (1979) 541- 560
338. Carey, G.F. and K. Sepehrnoori, Gershgorin theory for stiffness and stability of evolution systems and convection-diffusion 22 (1980) 23- 48
339. Carey, G.F., Y.K. Cheung and S.L. Lau, Mixed operator problems using least squares finite element collocation 22 (1980) 121- 130
340. Carey, G.F. and R. Krishnan, On a nonlinear iterative method in applied mechanics - Part I 26 (1981) 173- 180
341. Carey, G.F., A. Kabaila and M. Utku, On penalty methods for interelement constraints 30 (1982) 151- 171
342. Carey, G.F. and R. Krishnan, On a nonlinear iterative method in applied mechanics, Part II 30 (1982) 323- 333
343. Carey, G.F., Derivative calculation from finite element solutions 35 (1982) 1- 14
344. Carey, G.F. and R. Krishnan, Penalty approximation of Stokes flow 35 (1982) 169- 206
345. Carey, G.F. and R. Krishnan, Penalty finite element method for the Navier-Stokes equations 42 (1984) 183- 224
346. Carey, G.F. and R. Krishnan, Continuation techniques for a penalty approximation of the Navier-Stokes equations 48 (1985) 265- 282
347. Carey, G.F., S.S. Chow and M.K. Seager, Approximate boundary-flux calculations 50 (1985) 107- 120
348. Carey, G.F. and R. Krishnan, Convergence of iterative methods in penalty finite element approximation of the Navier-Stokes equations 60 (1987) 1- 29
349. Carey, G.F. and B.-N. Jiang, Nonlinear preconditioned conjugate gradient and least-squares finite elements 62 (1987) 145- 154
350. Carey, G.F. and T.T. Pan, Shocked transonic flow calculations using finite elements and a fictitious gas 81 (1990) 1- 11
351. Carey, G.F. and Y. Shen, Approximations of the KdV equation by least squares finite elements 93 (1991) 1- 11
352. Carnoy, E., Postbuckling analysis of elastic structures by the finite element method 23 (1980) 143- 174
353. Carnoy, E.G., Mixed finite elements based upon Marguerre theory for the study of geometrically nonlinear behavior of thin shells 29 (1981) 121- 146
354. Carnoy, E.G., Asymptotic study of the elastic postbuckling behavior of structures by the finite element method 29 (1981) 147- 173

355. Carnoy, E. and G. Sander, Stability and postbuckling analysis of nonlinear structures 32 (1982) 329- 363
356. Caussignac, P. and R. Touzani, Solution of three-dimensional boundary layer equations by a discontinuous finite element method, Part I: Numerical analysis of a linear model problem 78 (1990) 249- 271
357. Caussignac, P. and R. Touzani, Solution of three-dimensional boundary layer equations by a discontinuous finite element method, Part II: Implementation and numerical results 79 (1990) 1- 20
358. Cebeci, T. and J. Bard, Thermal response of an unsteady laminar boundary layer on a flat plate due to step changes in wall temperature and in wall heat flux 2 (1973) 323- 338
359. Cebeci, T., K.C. Chang and P. Bradshaw, Solution of a hyperbolic system of turbulence-model equations by the "box" scheme 22 (1980) 213- 227
360. Cebeci, T., R.S. Hirsh, H.B. Keller and P.G. Williams, Studies of numerical methods for the plane Navier-Stokes equations 27 (1981) 13- 44
361. Cedolin, L. and Z.P. Bažant, Effect of finite element choice in blunt crack band analysis 24 (1980) 305- 316
362. Chan, A.S.L. and V.M. Trbojevic, Thin shell finite element by the mixed method formulation - Part 1 9 (1976) 337- 367
363. Chan, A.S.L. and V.M. Trbojevic, Thin shell finite element by the mixed method formulation - Parts 2 and 3 10 (1977) 75- 103
364. Chan, A.S.L. and J.P. Wolf, Cooling tower supporting columns and reinforcing rings in small and large displacement analyses 13 (1978) 1- 26
365. Chan, A.S.L. and K.M. Hsiao, Nonlinear analysis using a reduced number of variables 52 (1985) 899- 913
366. Chan, A.S.L. and K.V. Spiliopoulos, A simplified method of solution for the short cycle creep-plasticity problem 60 (1987) 257- 274
367. Chan, A.S.L. and T.B. Lau, Further development of the reduced basis method for geometric nonlinear analysis 62 (1987) 127- 144
368. Chan, S.L., Large deflection kinematic formulations for three-dimensional framed structures 95 (1992) 17- 36
369. Chang, C.L., A least-squares finite element method for the Helmholtz equation 83 (1990) 1- 7
370. Chang, C.L. and B.-N. Jiang, An error analysis of least-squares finite element method of velocity-pressure-vorticity formulation for Stokes problem 84 (1990) 247- 255
371. Chang, H., A simple computer-aided design procedure for minimal variations 73 (1989) 99- 107
372. Chang, T.Y. and K. Sawamiphakdi, Large deflection and post-buckling analysis of shell structures 32 (1982) 311- 326
373. Chang, T.Y., A.F. Saleeb and W. Graf, On the mixed formulation of a 9-node Lagrange shell element 73 (1989) 259- 281
374. Changizi, K., Y.A. Khulief and A.A. Shabana, Transient analysis of flexible multi-body systems. Part II: application to aircraft landing 54 (1986) 93- 110
375. Chaouche, A., A. Randriamampianina and P. Bontoux, A collocation method based on the influence matrix technique for Navier-Stokes problems in annular domains 80 (1990) 237- 244



376. Charbonneau, G., S. Vinarnick, P. Néel, C. Évariste and C. Vibet, Symbolic modelling of controlled mechanisms 98 (1992) 23- 40
377. Charman, C.M., R.M. Grenier and R.E. Nickell, Large deformation inelastic analysis of impact for shipping casks 33 (1982) 759- 784
378. Chavent, G., G. Cohen and J. Jaffre, Discontinuous upwinding and mixed finite elements for two-phase flows in reservoir simulation 47 (1984) 93- 118
379. Chen, C.J., M.Z. Sheikholeslami and R.B. Bhiladvala, Finite analytic numerical method for two-point boundary value problems of ordinary differential equations 75 (1989) 61- 76
380. Chen, C.-K., K.-L. Wong and S.-C. Lee, The finite element solution of laminar combined convection from two spheres in tandem arrangement 59 (1986) 73- 84
381. Chen, C.P. and M.J. Sheu, Numerical simulation of unsteady transonic flows using a field integral equation method 98 (1992) 251- 260
382. Chen, D.R. and M.J. Sheu, Investigation of numerical solutions of integral equation methods for multi-element aerofoils 68 (1988) 345- 364
383. Chen, D.R. and M.J. Sheu, Numerical solutions for oscillatory aerofoil at high reduced frequency 74 (1989) 55- 68
384. Chen, H.-T., T.-M. Chen and C.-K. Chen, Hybrid Laplace transform/finite element method for one-dimensional transient heat conduction problems 63 (1987) 83- 95
385. Chen, T.-M., Some questions concerning the initial fields in finite difference computation of two-dimensional steady transonic flows 57 (1986) 131- 142
386. Chen, T.-M., A modified hybrid Laplace transform/finite element method for transient heat conduction problems 98 (1992) 261- 272
387. Chen, Y.-H., Solution of stiffened problems for a finite internally cracked plate by using complex potentials and the generalized variational method 62 (1987) 1- 16
388. Chen, Y.Z., Solution of plane notch problems for a finite plate by the generalized variational method 42 (1984) 57- 70
389. Chen, Y.Z., On the torsional rigidity for a hollow shaft with outer or inner keys 42 (1984) 107- 118
390. Chen, Y.Z., A special boundary-element formulation for multiple-circular-hole problems in an infinite plate 50 (1985) 263- 273
391. Chen, Z. and H.L. Schreyer, Secant structural solution strategies under element constraint for incremental damage 90 (1991) 869- 884
392. Chen, Z.Q. and X. Ji, A new approach to finite deformation problems of elastoplasticity-boundary element analysis methods 78 (1990) 1- 18
393. Cheng Chang-jun and Lui Xiao-an, Buckling and post-buckling of annular plates in shearing, Part I: Buckling 92 (1991) 157- 172
394. Cheng Chang-jun and Lui Xiao-an, Buckling and post-buckling of annular plates in shearing, Part II: Post-buckling 92 (1991) 173- 191
395. Cheng, J.-H. and N. Kikuchi, An analysis of metal forming processes using large deformation elastic-plastic formulations 49 (1985) 71- 108
396. Cheng, S.-I., A deterministic view of shear turbulence 64 (1987) 5- 19
397. Cheng, W.-Q., F.-W. Zhu and J.-W. Luo, Computational finite element analysis and optimal design for multibody contact system 71 (1988) 31- 39

398. Chenot, J.L., P. Montmitonnet, A. Bern and C. Bertrand-Corsini, A method for determining free surfaces in steady state finite element computations 92 (1991) 245- 260
399. Chinosi, C., G. Sacchi and T. Scapolla, A hierarchic family of conforming finite elements for the solution of plate bending problems 80 (1990) 327- 336
400. Chiu, W.K. and M.P. Norton, Application of a collocation method to unsteady flow problems 83 (1990) 231- 245
401. Choe, K.Y. and K.A. Holsapple, The discontinuous finite element method with the Taylor-Galerkin approach for nonlinear hyperbolic conservation laws 95 (1992) 141- 167
402. Choi, K.K. and H.G. Seong, A domain method for shape design sensitivity analysis of built-up structures 57 (1986) 1- 15
403. Chon, Y.T., W.A. Nash and C.E. Hutchinson, On the yielding rate of a seismic structure 9 (1976) 139- 152
404. Christiansen, H.N. and S.E. Benzley, Computer graphics displays of nonlinear calculations 34 (1982) 1037-1050
405. Christie, I. and J.M. Sanz-Serna, A Galerkin method for a nonlinear integro-differential wave system 44 (1984) 229- 237
406. Christov, C. and Z. Zapryanov, Oscillatory fully developed viscous flow in a toroidal tube 22 (1980) 49- 58
407. Chu, M.T. and G.H. Guirguis, A numerical method for solving interface problems arising in two-point boundary value problems 74 (1989) 99- 113
408. Chuanrong, Z. and B. Yimin, Structural modification and vibration reanalysis 83 (1990) 99- 108  
90 (1991) 583- 608
409. Chung, T.J. and W.S. Yoon, Wave instability in combustion 64 (1987) 21- 37
410. Chyu, W.J., T. Kawamura and D.P. Bencze, Calculation of external-internal flow fields for mixed-compression inlets 1 (1972) 217- 249
411. Ciarlet, P.G. and P.-A. Raviart, Interpolation theory over curved elements, with applications to finite element methods 2 (1973) 17- 31
412. Ciarlet, P.G. and P.-A. Raviart, Maximum principle and uniform convergence for the finite element method 5 (1975) 277- 295
413. Ciarlet, P.G. and R. Glowinski, Dual iterative techniques for solving a finite element approximation of the biharmonic equation 17/18 (1979) 227- 258
414. Ciarlet, P.G. and P. Destuynder, A justification of a nonlinear model in plate theory 26 (1981) 145- 172
415. Ciarlet, P.G. and S. Kesavan, Two-dimensional approximations of three-dimensional eigenvalue problems in plate theory 11 (1977) 19- 30
416. Cinquini, C., D. Lamblin and G. Guerlement, Variational formulation of the optimal plastic design of circular plates 75 (1989) 283- 297
417. Cline, D.D. and J.J. Bertin, Considerations for the development of grid schemes for hypersonic flows 17/18 (1979) 107- 129
418. Clough, R.W. and E.L. Wilson, Dynamic analysis of large structural systems with local nonlinearities 89 (1991) 361- 380
419. Cochelin, B. and M. Potier-Ferry, A numerical model for buckling and growth of delaminations in composite laminates 94 (1992) 239- 262
420. Codina, R., E. Oñate and M. Cervera, The intrinsic time for the streamline upwind/Petrov-Galerkin formulation using quadratic elements

421. Cohen, G. and P. Joly, Fourth order schemes for the heterogeneous acoustics equation 80 (1990) 397- 407
422. Cohen, G.A., Analysis of multicircuit shells of revolution by the field method 8 (1976) 301- 318
423. Cohen, G.A., Transverse shear stiffness of laminated anisotropic shells 13 (1978) 205- 220
424. Cohen, G.A., Comment on: Note on the effect of transverse shear deformation in laminated anisotropic plates (by E. Reissner 20 (1979) 203-209) 20 (1979) 211
425. Cohen, G.A., Buckling of laminated anisotropic shells including transverse shear deformation 26 (1981) 197- 204
426. Cohen, J. and J.O. Ferrari, A conversational language for solving problems in dimensional analysis 5 (1975) 53- 67
427. Cohen, J., Symbolic and numerical computer analysis of the combined local and overall buckling of rectangular thin-walled columns 7 (1976) 17- 38
428. Cohen, M.F., Application of the Petrov-Galerkin method to chemical-flooding reservoir simulation in one dimension 41 (1983) 195- 218
429. Comi, C., G. Maier and U. Perego, Generalized variable finite element modeling and extremum theorems in stepwise holonomic elastoplasticity with internal variables 96 (1992) 213- 237
430. Comincioli, V. and L. Guerri, Numerical solution of free boundary problems in seepage flow with capillary fringe 7 (1976) 153- 178
431. Conca, C., Numerical results on the homogenization of Stokes and Navier-Stokes equations modeling a class of problems from fluid mechanics 53 (1985) 223- 258
432. Conca, C., J. Planchard and M. Vanninathan, Un problème de fréquences propres en couplage fluide-structure 75 (1989) 27- 37
433. Conca, C., J. Planchard and M. Vanninathan, Existence and location of eigenvalues for fluid-solid structures 77 (1989) 253- 291
434. Conca, C., M. Duran and J. Planchard, A quadratic eigenvalue problem involving Stokes equations 100 (1992) 295- 313
435. Conca, M. and M. Vanninathan, A spectral problem arising in fluid-solid structures 69 (1988) 215- 242
436. Concus, P. and I. Karasalo, A numerical study of capillary stability in a circular cylindrical container with a concave spheroidal bottom 16 (1978) 327- 339
437. Contro, R., G. Maier and A. Zavelani, Inelastic analysis of suspension structures by nonlinear programming 5 (1975) 127- 143
438. Cornwell, R.E. and D.S. Malkus, Improved numerical dissipation for time integration algorithms in conduction heat transfer 97 (1992) 149- 156
439. Corradi, L. and A. Zavelani, A linear programming approach to shakedown analysis of structures 3 (1974) 37- 53
440. Corradi, L., On stress computation in displacement finite element models 54 (1986) 325- 339
441. Costa, M., A. Oliva, C.D. Pérez Segarra and R. Alba, Numerical simulation of solid-liquid phase change phenomena 91 (1991) 1123-1134
442. Cotsaftis, M. and C. Vibet, Synthesis of dynamical equations of mechanisms from their related control laws 74 (1989) 29- 40
443. Coulaud, O., D. Funaro and O. Kavian, Laguerre spectral approximation of elliptic problems in exterior domains 80 (1990) 451- 458



444. Coutinho, A.L.G.A., J.L.D. Alves, N.F.F. Ebecken and L.M. Troina, Conjugate gradient solution of finite element equations on the IBM 3090 vector computer utilizing polynomial preconditions 84 (1990) 129- 145
445. Cowsar, L.C., T.F. Dupont and M.F. Wheeler, A priori estimates for mixed finite element methods for the wave equation 82 (1990) 205- 222
446. Crisfield, M.A., A faster modified Newton-Raphson iteration 20 (1979) 267- 278
447. Crisfield, M.A., Accelerated solution techniques and concrete cracking 33 (1982) 585- 607
448. Crisfield, M.A., A four-noded thin-plate bending element using shear constraints - a modified version of Lyons' element 38 (1983) 93- 120
449. Crisfield, M.A. and J. Wills, Solution strategies and softening materials 66 (1988) 267- 289
450. Crisfield, M.A., A consistent co-rotational formulation for non-linear, three-dimensional, beam-elements 81 (1990) 131- 150
451. Crotty Sisson, J.M., Accurate interior point computations in the boundary integral equation method 79 (1990) 281- 307
452. Cruse, T.A., Recent advances in boundary element analysis methods 62 (1987) 227- 244
453. Curr, R.M., D. Sharma and D.G. Tatchell, Numerical predictions of some three-dimensional boundary layers in ducts 1 (1972) 143- 158
454. Currie, I.G. and W.W. Martin, Temperature calculations for shell enclosures subjected to thermal radiation 21 (1980) 75- 90
455. Cuvelier, C., A capillary free boundary problem governed by the Navier-Stokes equations 48 (1985) 45- 80
456. Dahlburg, R.B. and J.M. Picone, Pseudospectral simulation of compressible magnetohydrodynamic turbulence 80 (1990) 409- 416
457. Dasgupta, G., Computation of exterior potential fields by infinite substructuring 46 (1984) 295- 305
458. Davet, J.L. and P. Destuynder, Free-edge stress concentration in composite laminates: A boundary layer approach 59 (1986) 129- 140
459. Davies, A.M., A numerical investigation of errors arising in applying the Galerkin method to the solution of nonlinear partial differential equations 11 (1977) 341- 350
460. Davies, A.M., Application of the Galerkin method to the solution of Burgers' equation 14 (1978) 305- 321
461. Davies, A.M., On formulating a three-dimensional hydrodynamic sea model with an arbitrary variation of vertical eddy viscosity 22 (1980) 187- 211
462. Davis, M. and G. Fairweather, On the use of spline collocation for boundary value problems arising in chemical engineering 28 (1981) 179- 189
463. Dawe, D.J. and V. Peshkam, Buckling and vibration of finite-length composite prismatic plate structures with diaphragm ends, Part I: Finite strip formulation 77 (1989) 1- 30
464. De Borst, R., Smeared cracking, plasticity, creep, and thermal loading - A unified approach 62 (1987) 89- 110
465. De Borst, R. and P.P.J.M. Peeters, Analysis of concrete structures under thermal loading 77 (1989) 293- 310
466. De Borst, R. and L.J. Sluys, Localization in a Cosserat continuum under static and dynamic loading conditions 90 (1991) 805- 827
467. De Donato, O. and A. Franchi, A modified gradient method for finite element elastoplastic analysis by quadratic programming 2 (1973) 107- 131

468. De Frutos, J., T. Ortega and J.M. Sanz-Serna, A Hamiltonian, explicit algorithm with spectral accuracy for the 'good' Boussinesq system 80 (1990) 417- 423
469. De Roeck, Y.-H., P. Le Tallec and M. Vidrascu, A domain-decomposed solver for nonlinear elasticity 99 (1992) 187- 207
470. Dean, E.J., R. Glowinski and O. Pironneau, Iterative solution of the stream function-vorticity formulation of the Stokes problem, Applications to the numerical simulation of incompressible viscous flow 87 (1991) 117- 155
471. Debongnie, J.F., On a purely Lagrangian formulation of sloshing and fluid-induced vibrations of tanks 58 (1986) 1- 18
472. Decker, K.M., The Monte Carlo method in science and engineering: Theory and application 89 (1991) 463- 483
473. Degani, D., M.Y. Hussaini and A.A. Wray, Vecteded injection into compressible laminar and turbulent boundary layers 25 (1981) 11- 20
474. Delfour, M., G. Payre and J.-P. Zolésio, An optimal triangulation for second-order elliptic problems 50 (1985) 231- 261
475. Demkowicz, L., A. Karafiat and T. Liszka, On some convergence results for FDM with irregular mesh 42 (1984) 343- 355
476. Demkowicz, L., J.T. Oden and T. Strouboulis, Adaptive finite elements for flow problems with moving boundaries. Part I: Variational principles and a posteriori estimates 46 (1984) 217- 251
477. Demkowicz, L., Some remarks on moving finite element methods 46 (1984) 339- 349
478. Demkowicz, L., P. Devloo and J.T. Oden, On an  $h$ -type mesh-refinement strategy based on minimization of interpolation errors 53 (1985) 67- 89
479. Demkowicz, L. and J.T. Oden, An adaptive characteristic Petrov-Galerkin finite element method for convection-dominated linear and nonlinear parabolic problems in two space variables 55 (1986) 63- 87
480. Demkowicz, L., J.T. Oden, W. Rachowicz and O. Hardy, Toward a universal  $h$ - $p$  adaptive finite element strategy, Part 1. Constrained approximation and data structure 77 (1989) 79- 112
481. Demkowicz, L., J.T. Oden and W. Rachowicz, A new finite element method for solving compressible Navier-Stokes equations based on an operator splitting method and  $h$ - $p$  adaptivity 84 (1990) 275- 326
482. Demkowicz, L., J.T. Oden, W. Rachowicz and O. Hardy, An  $h$ - $p$  Taylor-Galerkin finite element method for compressible Euler equations 88 (1991) 363- 396
483. Doms, K. and J. Lipinski, Application of finite differences for solving the two-dimensional elasticity problem by means of the finite element method 6 (1975) 49- 58
484. Demuren, A.O., Numerical calculations of steady three-dimensional turbulent jets in crossflow 37 (1983) 309- 328
485. Desai, C.S., J. Kujawski, C. Miedzialowski and W. Ryzynski, Improved time integration of nonlinear dynamic problems 62 (1987) 155- 168
486. Desai, C.S., G.W. Wathugala, K.G. Sharma and L. Woo, Factors affecting reliability of computer solutions with hierarchical single surface constitutive models 82 (1990) 115- 137
487. Descloux, J. and M. Tolley, An accurate algorithm for computing the eigenvalues of a polygonal membrane 39 (1983) 37- 53

488. Descloux, J., K. Frosio and M. Flück, A two fluids stationary free boundary problem 77 (1989) 215- 226
489. Destuynder, P., On non linear membrane theory 32 (1982) 377- 399
490. Destuynder, P. and A. Lutoborski, A penalty duality method for the Budiansky-Sanders shell model 35 (1982) 127- 151
491. Destuynder, P. and T. Nevers, A new finite element scheme for bending plates 68 (1988) 127- 139
492. Destuynder, P. and T. Nevers, Some numerical aspects of mixed finite elements for bending plates 78 (1990) 73- 87
493. Deville, M.O., Chebyshev collocation solutions of flow problems 80 (1990) 27- 37
494. Devloo, P., J.T. Oden and T. Strouboulis, Implementation of an adaptive refinement technique for the SUPG algorithm 61 (1987) 339- 358
495. Devloo, P., J.T. Oden and P. Pattani, An  $h$ - $p$  adaptive finite element method for the numerical simulation of compressible flow 70 (1988) 203- 235
496. Dewynne, J.N., D.A. Hills and D. Nowell, Calculation of the opening displacement of surface-breaking plane cracks 97 (1992) 321- 331
497. Dey, S.S., Finite element method for random response of structures due to stochastic excitation 20 (1979) 173- 194
498. Dey, S.S. and S.B. Puri, Finite difference analysis of plate response to random loads 31 (1982) 239- 249
499. Dhanish, P.B. and M.S. Shunmugam, An algorithm for form error evaluation - using the theory of discrete and linear Chebyshev approximation 92 (1991) 309- 324
500. Di Blasi, C., S. Crescitelli and G. Russo, Numerical modelling of flow assisted flame spread 75 (1989) 481- 492
501. Di Blasi, C., S. Crescitelli and G. Russo, Model of oscillatory phenomena of flame spread along the surface of liquid fuels 90 (1991) 643- 657
502. Diakonov, S., To the calculation of low frequency oscillations of the Earth core 91 (1991) 1219-1228
503. Diaz, A.R., N. Kikuchi and J.E. Taylor, A method of grid optimization for finite element methods 41 (1983) 29- 45
504. Dietrich, G., A new formulation of the hypermatrix Householder-QR decomposition 9 (1976) 273- 280
505. Dietrich, G., On the efficient and accurate solution of the skew-symmetric eigenvalue problem. An arrangement of new and already known algorithmic formulations 14 (1978) 209- 235
506. Dilintas, G. and P. Laurent-Gengoux, Computing stress intensity factors in anisotropic solids by finite element methods 84 (1990) 111- 127
507. Dirschmid, W., An iteration procedure for reducing the expenses of static, elastoplastic and eigenvalue problems in finite element analyses 35 (1982) 15- 33
508. Distefano, N. and A. Samartin, A dynamic programming approach to the formulation and solution of finite element equations 5 (1975) 37- 52
509. Distefano, N. and A. Rath, System identification in nonlinear structural seismic dynamics 5 (1975) 353- 372
510. Distefano, N. and A. Rath, Sequential identification of hysteretic and viscous models in structural seismic dynamics 6 (1975) 219- 232
511. Djomehri, M.J. and J.H. George, Application of the moving finite element method to moving boundary Stefan problems 71 (1988) 125- 136

512. Doltsinis, I.S. and S. Nölting, Studies on parallel processing for coupled field problems 89 (1991) 497- 521
513. Don, W.-S. and D. Gottlieb, Spectral simulation of an unsteady compressible flow past a circular cylinder 80 (1990) 39- 58
514. Donat, R. and S. Osher, Propagation of error into regions of smoothness for non-linear approximations to hyperbolic equations 80 (1990) 59- 64
515. Donea, J., S. Giuliani, H. Laval and L. Quartapelle, Finite element solution of the unsteady Navier-Stokes equations by a fractional step method 30 (1982) 53- 73
516. Donea, J., S. Giuliani and J.P. Halleux, An arbitrary Lagrangian-Eulerian finite element method for transient dynamic fluid-structure interactions 33 (1982) 689- 723
517. Donea, J., S. Giuliani, H. Laval and L. Quartapelle, Time-accurate solution of advection-diffusion problems by finite elements 45 (1984) 123- 145
518. Donea, J., T. Belytschko and P. Smolinski, A generalized Galerkin method for steady convection-diffusion problems with application to quadratic shape function elements 48 (1985) 25- 43
519. Donea, J. and L.G. Lamain, A modified representation of transverse shear in  $C^0$  quadrilateral plate elements 63 (1987) 183- 207
520. Donea, J. and H. Laval, Nodal partition of explicit finite element methods for unsteady diffusion problems 68 (1988) 189- 204
521. Donea, J. and L. Quartapelle, An introduction to finite element methods for transient advection problems 95 (1992) 169- 203
522. Douglas Jr., J., B.L. Darlow, M.F. Wheeler and R.P. Kendall, Self-adaptive finite element and finite difference methods for one-dimensional two-phase immiscible flow 47 (1984) 119- 130
523. Douglas Jr., J., M.F. Wheeler, B.L. Darlow and R.P. Kendall, Self-adaptive finite element simulation of miscible displacement in porous media 47 (1984) 131- 159
524. Douglas, Jr., J., J.L. Hensley and T. Arbogast, A dual-porosity model for waterflooding in naturally fractured reservoirs 87 (1991) 157- 174
525. Downer, J.D., K.C. Park and J.C. Chiou, Dynamics of flexible beams for multibody systems: A computational procedure 96 (1992) 373- 408
526. Droux, J.-J., Three-dimensional numerical simulation of solidification by an improved explicit scheme 85 (1991) 57- 74
527. Drummond, J.P., R.C. Rogers and M.Y. Hussaini, A numerical model for supersonic reacting mixing layers 64 (1987) 39- 60
528. Dubois-Pèlerin, Y., T. Zimmermann and P. Bomme, Object-oriented finite element programming: II. A prototype program in Smalltalk 98 (1992) 361- 397
529. Duffett, G. and B.D. Reddy, The analysis of incompressible hyperelastic bodies by the finite element method 41 (1983) 105- 120
530. Duffett, G.A. and B.D. Reddy, The solution of multi-parameter systems of equations with application to problems in nonlinear elasticity 59 (1986) 179- 213
531. Duggan, F., A nonlinear empirical prescription for simultaneously interpolating and smoothing contours over an irregular grid (see also 50 (1985) 195-198) 44 (1984) 119- 125

532. Dulikravich, G.S., K.W. Mortara and L. Marraffa, Physically consistent models for artificial dissipation in transonic potential flow computations 79 (1990) 309- 320
533. Dumir, P.C. and A. Bhaskar, Nonlinear static analysis of rectangular plates on elastic foundations by the orthogonal point collocation method 67 (1988) 111- 124
534. Duncan, D.B. and D.F. Griffiths, The study of a Petrov-Galerkin method for first-order hyperbolic equations 45 (1984) 147- 166
535. Dupont, T.F. and L.B. Wahlbin, An analysis of Dendy's piecewise polynomial Petrov-Galerkin method for a hyperbolic equation with stagnation points 45 (1984) 167- 175
536. Durieu, J. and M. Petit, A 2-D solution of the contact problem in the capstan/tape/roller mechanism of magnetic recorders 43 (1984) 21- 35
537. Dutra do Carmo, E.G. and A.C. Galeão, Feedback Petrov-Galerkin methods for convection-dominated problems 88 (1991) 1- 16
538. Dutt, H.N.V. and A.K. Sreekanth, Design of supersonic airfoils by numerical optimization 19 (1979) 417- 427
539. Dutt, H.N.V. and A.K. Sreekanth, Design of airfoils in incompressible viscous flows by numerical optimization 23 (1980) 355- 368
540. Dvorkin, E.N. and A.P. Assanelli, 2D finite elements with displacement interpolated embedded localization lines: The analysis of fracture in frictional materials 90 (1991) 829- 844
541. Dwyer, H.A. and S. Ibrani, Time accurate solutions of the incompressible and three-dimensional Navier-Stokes equations 75 (1989) 333- 341
542. Dyachenko, V.F., The free point method for problems of continuous media 2 (1973) 265- 277
543. Edlund, U. and A. Klarbring, Analysis of elastic and elastic-plastic adhesive joints using a mathematical programming approach 78 (1990) 19- 47
544. Edlund, U. and A. Klarbring, A geometrically nonlinear model of the adhesive joint problem and its numerical treatment 96 (1992) 329- 350
545. Eggert, G.M. and P.R. Dawson, A viscoplastic formulation with elasticity for transient metal forming 70 (1988) 165- 190
546. Eidsheim, O.M. and P.K. Larsen, Nonlinear analysis of elasto-plastic shells by hybrid stress finite elements 34 (1982) 989-1018
547. Eiseman, P.R., Adaptive grid generation 64 (1987) 321- 376
548. Eiseman, P.R., Control point forms for interactive grid manipulation 91 (1991) 1151-1156
549. Eisenberger, M., On exact solutions for beam-columns on two-parameter elastic foundations 76 (1989) 95- 97
550. Ekebjærg, L. and P. Justesen, An explicit scheme for advection-diffusion modelling in two dimensions 88 (1991) 287- 297
551. El Misiery, A.E.M. and E.L. Ortiz, Tau-lines: A new hybrid approach to the numerical treatment of crack problems based on the Tau method 56 (1986) 265- 282
552. Elishakoff, I. and J. Hollkamp, Computerized symbolic solution for a nonconservative system in which instability occurs by flutter in one range of a parameter and by divergence in another 62 (1987) 27- 46



553. Elishakoff, I. and F. Pellegrini, Exact solutions for buckling of some divergence-type nonconservative systems in terms of Bessel and Lommel functions 66 (1988) 107- 119
554. Elishakoff, I. and I. Lottati, Divergence and flutter of nonconservative systems with intermediate support 66 (1988) 241- 250
555. Elishakoff, I. and C.W. Bert, Comparison of Rayleigh's noninteger-power method with Rayleigh-Ritz method 67 (1988) 297- 309
556. Elishakoff, I. and J. Tang, Buckling of polar orthotropic circular plates on elastic foundation by computerized symbolic algebra 68 (1988) 229- 247
557. Elishakoff, I. and B. Pletner, Analysis of buckling by computer algebra 88 (1991) 299- 309
558. Elperin, T. and O. Igra, About the choice of uniformly distributed sequences to be used in the random choice method 57 (1986) 181- 189
559. Engquist, B. and H.-O. Kreiss, Difference and finite element methods for hyperbolic differential equations 17/18 (1979) 581- 596
560. Eraslan, A.N. and R.C. Brown, A simple iterative procedure for reducing stiffness and computer memory in reactive flow problems 64 (1987) 61- 77
561. Eriksson, L.-E., Flow solution on a dual-block grid around an airplane 64 (1987) 79- 93
562. Eriksson, L.-E., Simulation of transonic flow in radial compressors 64 (1987) 95- 111
563. Espedal, M.S. and R.E. Ewing, Characteristic Petrov-Galerkin subdomain methods for two-phase immiscible flow 64 (1987) 113- 135
564. Eterovic, A.L. and K.-J. Bathe, A note on the use of the additive decomposition of the strain tensor in finite deformation inelasticity 93 (1991) 31- 38
565. Eterovic, J.E., O.M. Barturen and H.O. Quaranta, Behaviour of a rectangular wing in a supersonic flow - dynamic pressure and normal force analysis in the range 1.3-4.0 Mach 53 (1985) 91- 94
566. Evans, D.J. and C.C. Rick, The determination of the eigenvalues of large sparse symmetric matrices 22 (1980) 309- 325
567. Evans, D.J. and E.A. Lipitakis, A normalized implicit conjugate gradient method for the solution of large sparse systems of linear equations 23 (1980) 1- 19
568. Evans, D.J. and M.J. Biggins, Peripheral block over-relaxation methods for triangular grids 27 (1981) 63- 80
569. Evans, D.J. and C.P. Murphy, The solution of the biharmonic equation in a rectangular region by Chebyshev series 27 (1981) 81- 99
570. Evans, D.J., A. Hadjidimos and D. Noutsos, Parallel solution of linear systems by quadrant interlocking factorisation methods 29 (1981) 97- 107
571. Evans, D.J. and J. Shanehchi, Preconditioned iterative methods for the large sparse symmetric eigenvalue problem 31 (1982) 251- 264
572. Evans, D.J. and C.R. Gane, A.D.I. methods for the solution of diffusion problems in  $r-\theta$  geometry 31 (1982) 281- 295
573. Evans, D.J. and M.S. Sahimi, The solution of nonlinear parabolic partial differential equations by the alternating group explicit (AGE) method 84 (1990) 15- 42
574. Ewing, R.E., T.F. Russell and M.F. Wheeler, Convergence analysis of an approximation of miscible displacement in porous media by mixed finite elements and a modified method of characteristics 47 (1984) 73- 92
575. Ewing, R.E. and R.F. Heinemann, Mixed finite element approximation of phase velocities in compositional reservoir simulation 47 (1984) 161- 175



576. Ewing, R.E., Finite element methods for nonlinear flows in porous media 51 (1985) 421- 439
577. Ewing, R.E., Efficient adaptive procedures for fluid-flow applications 55 (1986) 89- 103
578. Ewing, R.E., R.F. Heinemann, J.V. Koebe and U.S. Prasad, Velocity weighting techniques for fluid displacement problems 64 (1987) 137- 151
579. Ewing, R.E., A posteriori error estimation 82 (1990) 59- 72
580. Ewing, R.E., J. Shen and J. Wang, Application of superconvergence to problems in the simulation of miscible displacement 89 (1991) 73- 84
581. Eymard, R., T. Gallouët and P. Joly, Hybrid finite element techniques for oil recovery simulation 74 (1989) 83- 98
582. Fabrikant, V., S.V. Hoa and T.S. Sankar, On the approximate solution of singular integral equations 29 (1981) 19- 33
583. Faille, I., A control volume method to solve an elliptic equation on a two-dimensional irregular mesh 100 (1992) 275- 290
584. Fair, W. and J. Wimp, The  $\tau$ -method and Fredholm integral equations 11 (1977) 207- 214
585. Farcy, A. and T. Alziary de Roquefort, Pseudo-spectral multi-domain method for incompressible viscous flow computation 80 (1990) 337- 346
586. Farhat, C. and L. Crivelli, A general approach to nonlinear FE computations on shared-memory multiprocessors 72 (1989) 153- 171
587. Farhat, C. and N. Sobh, A consistency analysis of a class of concurrent transient implicit/explicit algorithms (see also 92 (1991) 397-398) 84 (1990) 147- 162
588. Farhat, C., K.C. Park and Y. Dubois-Pelerin, An unconditionally stable staggered algorithm for transient finite element analysis of coupled thermoelastic problems 85 (1991) 349- 365
589. Farhat, C. and M. Geradin, Using a reduced number of Lagrange multipliers for assembling parallel incomplete field finite element approximations 97 (1992) 333- 354
590. Farshad, M., G. Karami and M.R. Banan, A theoretical and numerical finite element analysis of spatial rod systems 73 (1989) 111- 132
591. Faruque, M.O. and M. Zaman, A mixed-variational approach for the analysis of circular plate-elastic halfspace interaction 92 (1991) 75- 86
592. Fauchon, D., P.A. Tanguy and R.E. Hayes, A finite element computation of moderate Reynolds fluid flow using a modified Marquardt method 70 (1988) 139- 149
593. Fawzi, T.H. and Y.A. Safar, Boundary methods for the analysis and design of high-voltage insulators 60 (1987) 343- 369
594. Felippa, C.A. and K.C. Park, Direct time integration methods in nonlinear structural dynamics 17/18 (1979) 277- 313
595. Felippa, C.A. and K.C. Park, Staggered transient analysis procedures for coupled mechanical systems: formulation 24 (1980) 61- 111
596. Felippa, C.A. and J.A. DeRuntz, Finite element analysis of shock-induced hull cavitation 44 (1984) 297- 337
597. Felippa, C.A. and P.G. Bergan, A triangular bending element based on an energy-orthogonal free formulation 61 (1987) 129- 160
598. Figueroa-Nieto, J., Mixed finite element solution for the Navier-Stokes equations 42 (1984) 89- 106
599. Fischer, K., On the calculation of higher derivatives in finite elements 7 (1976) 323- 330

600. Fischer, P.F., Analysis and application of a parallel spectral element method for the solution of the Navier-Stokes equations 80 (1990) 483- 491
601. Fish, J. and T. Belytschko, A finite element with a unidirectionally enriched strain field for localization analysis 78 (1990) 181- 200
602. Fitzsimons, C.J., J.J.H. Miller, S. Wang and C.H. Wu, Hexahedral finite elements for the stationary semiconductor device equation 84 (1990) 43- 57
603. Flanagan, D.P. and L.M. Taylor, An accurate numerical algorithm for stress integration with finite rotations 62 (1987) 305- 320
604. Fletcher, C.A.J., An improved finite element formulation derived from the method of weighted residuals 15 (1978) 207- 222
605. Fletcher, C.A.J., On the application of a least squares residual-fitting finite element formulation to fluid flow problems 24 (1980) 251- 267
606. Fletcher, C.A.J., On an alternating direction implicit finite element method for flow problems 30 (1982) 307- 322
607. Fletcher, C.A.J., The group finite element formulation 37 (1983) 225- 244
608. Fletcher, C.A.J. and K. Srinivas, Stream function vorticity revisited 41 (1983) 297- 322
609. Fletcher, C.A.J. and K. Srinivas, On the role of mass operators in the group finite element formulation 46 (1984) 313- 327
610. Fleury, C., A unified approach to structural weight minimization 20 (1979) 17- 38
611. Fleury, C. and G. Sander, Dual methods for optimizing finite element flexural systems 37 (1983) 249- 275
612. Foale, S. and J.M.T. Thompson, Geometrical concepts and computational techniques of nonlinear dynamics 89 (1991) 381- 394
613. Fomin, V.M., V.P. Shapeev and N.N. Yanenko, Modelling of continuum mechanics problems with large deformations 32 (1982) 157- 197
614. Förster, K., Technically oriented algorithms for unsteady pipe flow 2 (1973) 279- 303
615. Forsyth Jr., P. and H. Rasmussen, A Kantorovich method of solution of time-dependent electrochemical machining problems 23 (1980) 129- 141
616. Forsyth, P.A., Comparison of the single-phase and two-phase numerical model formulation for saturated-unsaturated groundwater flow 69 (1988) 243- 259
617. Fortin, A., M. Fortin and P. Tanguy, Numerical simulation of viscous flows in hydraulic turbomachinery by the finite element method 58 (1986) 337- 358
618. Fortin, A., D. Côté and P.A. Tanguy, On the imposition of friction boundary conditions for the numerical simulation of Bingham fluid flows 88 (1991) 97- 109
619. Fortin, M. and R. Pierre, On the convergence of the mixed method of Crochet and Marchal for viscoelastic flows 73 (1989) 341- 350
620. Fox, D.D and J.C. Simo, A drill rotation formulation for geometrically exact shells 98 (1992) 329- 343
621. Franca, L.P. and T.J.R. Hughes, Two classes of mixed finite element methods 69 (1988) 89- 129
622. Franca, L.P. and E.G. Dutra do Carmo, The Galerkin gradient least-squares method 74 (1989) 41- 54
623. Franca, L.P., Analysis and finite element approximation of compressible and incompressible linear isotropic elasticity based upon a variational principle 76 (1989) 259- 273
624. Franca, L.P., S.L. Frey and T.J.R. Hughes, Stabilized finite element methods: I. Application to the advective-diffusive model 95 (1992) 253- 276

625. Franca, L.P. and S.L. Frey, Stabilized finite element methods: II. The incompressible Navier-Stokes equations 99 (1992) 209- 233
626. Franchi, A. and M.Z. Cohn, Computer analysis of elastic-plastic structures 21 (1980) 271- 294
627. Franchi, A. and F. Genna, A numerical scheme for integrating the rate plasticity equations with an "a priori" error control 60 (1987) 317- 342
628. Franchi, A. and F. Genna, A stable/neutral equilibrium path for the numerical solution of elastic-plastic softening problems 90 (1991) 921- 942
629. Francken, P., M.O. Deville and E.H. Mund, On the spectrum of the iteration operator associated to the finite element preconditioning of Chebyshev collocation calculations 80 (1990) 295- 304
630. Frangopol, D.M., A reliability-based optimization technique for automatic plastic design 44 (1984) 105- 117
631. Frederick, J.W., R.J. Ribando and H.G. Wood, A finite difference simulation of a continuous flow centrifuge 93 (1991) 401- 414
632. French, D.A. and S. Jensen, Behaviour in the large of numerical solutions to one-dimensional nonlinear viscoelasticity by continuous time Galerkin methods 86 (1991) 105- 124
633. Friberg, O., A set of parameters for finite rotations and translations 66 (1988) 163- 171
634. Fried, I. and J.A. Metzler, Conjugate gradient solution of a finite element elastic problem with high Poisson ratio 15 (1978) 83- 84
635. Fried, I., Accuracy of string element mass matrix 20 (1979) 317- 321
636. Fried, I., Meaningful existence of finite element solutions to off-limit problems 22 (1980) 229- 240
637. Fried, I., Stability and equilibrium of the straight and curved elastica-finite element computation 28 (1981) 49- 61
638. Fried, I., Nonlinear finite element computation of the equilibrium, stability and motion of the extensional beam and ring 38 (1983) 29- 44
639. Fried, I., On a deficiency in unconditionally stable explicit time-integration methods in elastodynamics and heat transfer 46 (1984) 195- 200
640. Fried, I., Orthogonal trajectory accession to the nonlinear equilibrium curve 47 (1984) 283- 297
641. Fried, I., Nonlinear finite element analysis of the thin elastic shell of revolution 48 (1985) 283- 299
642. Fried, I., Large-deflection computation of the plastica 49 (1985) 163- 173
643. Fried, I., A. Johnson and A. Tessler, Minimal-degree thin triangular plate and shell bending finite elements of order two and four 56 (1986) 283- 307
644. Fried, I., Round-off errors in the stiffness equation 57 (1986) 245- 252
645. Fried, I. and A.R. Johnson, Nonlinear computation of axisymmetric solid rubber deformation 67 (1988) 241- 253
646. Fried, I. and A.R. Johnson, A note on elastic energy density functions for largely deformed compressible rubber solids 69 (1988) 53- 64
647. Friedman, M. and Y. Yavin, On the numerical solution of a nonlinear partial differential equation related to the optimal control of a noisy oscillator 8 (1976) 349- 355
648. Friedman, M. and Y. Yavin, On the numerical solution of two coupled nonlinear partial integro-differential equations related to the optimal control of a nonlinear noisy oscillator 16 (1978) 37- 46

649. Frik, G. and T.L. Johnsen, Note on the ill-conditioned eigenvalue problem in elastic vibrations 6 (1975) 65- 77
650. Fröhlich, J. and R. Peyret, Calculations of non-Boussinesq convection by a pseudospectral method 80 (1990) 425- 433
651. Fröhlich, J. and R. Peyret, A spectral algorithm for low Mach number combustion 90 (1991) 631- 642
652. Fuehrer, C. and O. Wallrapp, A computer-oriented method for reducing linearized multibody system equations by incorporating constraints 46 (1984) 169- 175
653. Fung, K.-Y., J. Tripp and B. Goble, Adaptive refinement with truncation error injection 66 (1988) 1- 16
654. Gabutti, B., P. Lepora and G. Merlo, Numerical solution of a large deflection problem 6 (1975) 31- 48
655. Galeão, A.C. and E.G. Dutra do Carmo, A consistent approximate upwind Petrov-Galerkin method for convection-dominated problems 68 (1988) 83- 95
656. Gall, D.A., The solution of linear, constant-coefficient, ordinary differential equations with APL 1 (1972) 189- 196
657. Gambin, W., A method of large finite elements 11 (1977) 351- 365
658. Gambolati, G., Numerical models in land subsidence control 5 (1975) 227- 237
659. Gambolati, G. and A. Perdon, Minimal eigenvalue of large sparse matrices by an efficient reverse power-conjugate gradient scheme 41 (1983) 1- 10
660. Gambolati, G., F. Sartoretto and P. Florian, An orthogonal accelerated deflation technique for large symmetric eigenproblems 94 (1992) 13- 23
661. Ganjoo, D.K. and T.E. Tezduyar, Petrov-Galerkin formulations for electrochemical processes 65 (1987) 61- 83
662. Ganjoo, D.K., T.E. Tezduyar and W.D. Goodrich, A new formulation for numerical simulation of electrophoresis separation processes 75 (1989) 515- 530
663. Gao, X. and Q. Zhang, Multi-step numerical integrators for time-dependent vibrating systems 69 (1988) 45- 52
664. García de Jalón, J., J. Unda and A. Avello, Natural coordinates for the computer analysis of multibody systems 56 (1986) 309- 327
665. Gardner, L.R.T., G.A. Gardner and A.H.A. Ali, Simulations of solitons using quadratic spline finite elements 92 (1991) 231- 243
666. Garg, V.K., Improved shooting techniques for linear boundary value problems 22 (1980) 87- 99
667. Garg, V.K. and S.C. Gupta, Stability of the nonparallel developing flow in a channel 29 (1981) 259- 269
668. Garg, V.K. and S.C. Gupta, Stability of developing flow in an annulus. Part II. Non-axisymmetric disturbances 31 (1982) 61- 68
669. Garg, V.K. and S.C. Gupta, Stability of nonparallel developing flow in an annulus 35 (1982) 35- 46
670. Garg, V.K., Throughflow analysis of axial flow turbines 37 (1983) 129- 137
671. Garg, V.K., Computation of three-dimensional parabolic laminar flows 53 (1985) 207- 221
672. Garnier, C., P. Rideau and Y. Papegay, Modelisation dynamique litterale 75 (1989) 215- 225
673. Gartling, D.K. and E.B. Becker, Finite element analysis of viscous, incompressible fluid flow - Part 1. Basic methodology 8 (1976) 51- 60

674. Gartling, D.K. and E.B. Becker, Finite element analysis of viscous, incompressible fluid flow - Part 2. Applications 8 (1976) 127- 138
675. Gartling, D.K., Convective heat transfer analysis by the finite element method 12 (1977) 365- 382
676. Gastaldi, F., A. Quarteroni and G. Sacchi Landriani, Coupling of two-dimensional hyperbolic and elliptic equations 80 (1990) 347- 354
677. Gaudrat, V.F., A Newton type algorithm for plastic limit analysis 88 (1991) 207- 224
678. Gauthier, S., A semi-implicit collocation method: Application to two-dimensional compressible convection 80 (1990) 435- 442
679. Gehani, N., A new data structure - the grid 11 (1977) 295- 308
680. Gekeler, E. and T.L. Johnsen, Galerkin-Obrechhoff methods and hyperbolic initial boundary value problems with damping 10 (1977) 359- 370
681. Gellert, M. and M.E. Laursen, Formulation and convergence of a mixed finite element method applied to elastic arches of arbitrary geometry and loading 7 (1976) 285- 302
682. George, P.L., F. Hecht and E. Saltel, Automatic mesh generator with specified boundary 92 (1991) 269- 288
683. Geymonat, G., M. Rosati and V. Valente, Numerical analysis for eversion in elastic spherical caps equilibrium 75 (1989) 39- 52
684. Ghosh, S. and N. Kikuchi, An arbitrary Lagrangian-Eulerian finite element method for large deformation analysis of elastic-viscoplastic solids 86 (1991) 127- 188
685. Ginsburg, S. and M. Gellert, Numerical solution of static and dynamic nonlinear multi-degree-of-freedom systems 23 (1980) 111- 125
686. Girrens, S.P. and F.W. Smith, Finite element analysis of coupled constituent diffusion in thermoelastic solids 62 (1987) 209- 223
687. Givler, R.C., D.K. Gartling, M.S. Engelman and V. Haroutunian, Navier-Stokes simulations of flow past three-dimensional submarine models 87 (1991) 175- 200
688. Givoli, D. and J.B. Keller, A finite element method for large domains 76 (1989) 41- 66
689. Givoli, D. and L. Rivkin, A finite element scheme based on the simplified Reissner equations for shells of revolution 93 (1991) 111- 124
690. Givoli, D., A spatially exact non-reflecting boundary condition for time dependent problems 95 (1992) 97- 113
691. Givoli, D., I. Elishakoff and Y. Stavsky, A boundary-perturbation finite element method for plane elasticity problems 96 (1992) 45- 63
692. Glass, J. and W. Rodi, A higher order numerical scheme for scalar transport 31 (1982) 337- 358
693. Glowinski, R. and A. Marrocco, Analyse numérique du champ magnétique d'un alternateur par éléments finis et sur-relaxation ponctuelle non linéaire 3 (1974) 55- 85
694. Glowinski, R. and A. Marrocco, Numerical solution of two-dimensional magnetostatic problems by augmented Lagrangian methods 12 (1977) 33- 46
695. Glowinski, R., Q.V. Dinh and J. Periaux, Domain decomposition methods for nonlinear problems in fluid dynamics 40 (1983) 27- 109
696. Gogel, T.H., M. Auweter-Kurtz, T.M. Götz, E.W. Messerschmid, H.O. Schrade and P.C. Sleziona, Numerical study of high enthalpy flow in a plasma wind tunnel 89 (1991) 425- 434



697. Golley, B.W., The finite element solution of a class of elastica problems 46 (1984) 159- 168
698. Golley, B.W. and W.A. Grice, Prismatic folded plate analysis using finite strip-elements 76 (1989) 101- 118
699. Golse, F., Applications of the Boltzmann equation within the context of upper atmosphere vehicle aerodynamics 75 (1989) 299- 316
700. Golub, G.H. and W.E. Langlois, Direct solution of the equation for the Stokes stream function 19 (1979) 391- 399
701. Goodman, J., R.V. Kohn and L. Reyna, Numerical study of a relaxed variational problem from optimal design 57 (1986) 107- 127
702. Goudreau, G.L. and R.L. Taylor, Evaluation of numerical integration methods in elastodynamics 2 (1973) 69- 97
703. Goudreau, G.L. and J.O. Hallquist, Recent developments in large-scale finite element Lagrangian hydrocode technology 33 (1982) 725- 757
704. Gray, W.H. and N.M. Schnurr, A comparison of the finite element and finite difference methods for the analysis of steady two-dimensional heat conduction problems 6 (1975) 243- 245
705. Greenberg, J.B., Y. Stavski and M. Sabag, Eigenfrequencies of anisotropic composite shells of revolution having nonuniform supports 70 (1988) 91- 102
706. Greenspan, D. and D. Schultz, Natural convection in an enclosure with localized heating from below 3 (1974) 1- 10
707. Greenspan, D., An arithmetic particle theory of fluid dynamics 3 (1974) 293- 303
708. Greenspan, D., A particle model of the Stefan problem 13 (1978) 95- 104
709. Greenspan, D., Particle modeling of cavity flow on a vector computer 66 (1988) 291- 299
710. Gregoire, J.P., J.C. Nedelec and J. Planchard, A method of finding the eigenvalues and eigenfunctions of self-adjoint elliptic operators 8 (1976) 201- 214
711. Gresho, P.M., Some current CFD issues relevant to the incompressible Navier-Stokes equations 87 (1991) 201- 252
712. Greywall, M.S., Streamwise computation of duct flows 21 (1980) 231- 247
713. Greywall, M.S., Streamwise computation of three-dimensional parabolic flows 36 (1983) 71- 93
714. Grierson, D.E., A. Franchi, O. DeDonato and L. Corradi, Mathematical programming and nonlinear finite element analysis 17/18 (1979) 497- 518
715. Griffiths, D.F. and J. Lorenz, An analysis of the Petrov-Galerkin finite element method 14 (1978) 39- 64
716. Griffiths, D.F., A.R. Mitchell and J.L. Morris, A numerical study of the nonlinear Schrödinger equation 45 (1984) 177- 215
717. Grotkop, G., Finite element analysis of long-period water waves 2 (1973) 147- 157
718. Gruber, R., R. Iacono, S. Semenzato and H.P. Zehrfeld, Finite element methods to calculate ideal magnetohydrodynamic flow equilibria in Tokamaks 52 (1985) 675- 682
719. Gruber, R., S. Merazzi, W.A. Cooper, G.Y. Fu, U. Schwenn and D.V. Anderson, Ideal magnetohydrodynamic stability computations for three-dimensional magnetic fusion devices 91 (1991) 1135-1149
720. Gruver, W.A. and N.H. Engersbach, Optimal impulsive trajectory rendezvous by mathematical programming 11 (1977) 165- 174
721. Grygiel, J.-M. and P.A. Tanguy, Finite element solution for advection-dominated thermal flows 93 (1991) 277- 289



722. Guedes, J.M. and N. Kikuchi, Preprocessing and postprocessing for materials based on the homogenization method with adaptive finite element methods 83 (1990) 143- 198
723. Guillard, H. and R. Peyret, On the use of spectral methods for the numerical solution of stiff problems 66 (1988) 17- 43
724. Guillard, H. and J.-A. Désidéri, Iterative methods with spectral preconditioning for elliptic equations 80 (1990) 305- 312
725. Güldenpfennig, J. and R.J. Clifton, On the computation of plastic stress-strain relations for polycrystalline metals 10 (1977) 141- 149
726. Gunzburger, M.D. and H.G. Wood III, A finite element method for the Onsager pancake equation 31 (1982) 43- 59
727. Gunzburger, M.D., C.H. Liu and R.A. Nicolaides, A finite element method for diffusion dominated unsteady viscous flows 39 (1983) 55- 67
728. Guo, Y.L. and S.-F. Chen, Collapse analysis of steel plate by finite strip method 93 (1991) 319- 333
729. Gupta, K.K., On a finite dynamic element method for free vibration analysis of structures 9 (1976) 105- 120
730. Gupta, R.S., Moving grid method without interpolations 4 (1974) 143- 152
731. Gupta, R.S. and D. Kumar, A modified variable time step method for the one-dimensional Stefan problem 23 (1980) 101- 109
732. Gupta, R.S. and D. Kumar, Complete numerical solution of the oxygen diffusion problem involving a moving boundary 29 (1981) 233- 239
733. Gupta, R.S. and D. Kumar, Solution of a one-dimensional phase change problem with non-uniform initial temperature 37 (1983) 139- 150
734. Gupta, R.S. and A. Kumar, Variable time-step method with coordinate transformation 44 (1984) 91- 103
735. Gupta, R.S. and A. Kumar, Approximate analytical methods for multi-dimensional Stefan problems 56 (1986) 127- 138
736. Gupta, R.S. and N.C. Banik, Constrained integral method for solving moving boundary problems 67 (1988) 211- 221
737. Gupta, S.C. and V.K. Garg, Stability of developing flow in a two-dimensional channel - symmetric vs. antisymmetric disturbances 27 (1981) 363- 368
738. Gupta, S.C. and V.K. Garg, Developing flow in a concentric annulus 28 (1981) 27- 35
739. Gupta, S.C. and V.K. Garg, Stability of developing flow in an annulus. Part I. Axisymmetric disturbances 28 (1981) 207- 216
740. Guran, A. and F.P.J. Rimrott, Application of funicular polygon method to inelastic buckling analysis of plates 76 (1989) 157- 170
741. Gustafsson, I. and G. Lindskog, A preconditioning technique based on element matrix factorizations 55 (1986) 201- 220
742. Gutkowski, W., J. Bauer and Z. Iwanow, Discrete structural optimization 51 (1985) 71- 78
743. Haas, R. and H. Brauchli, Fast solver for plane potential problems with mixed boundary conditions 89 (1991) 543- 556
744. Habashi, W.G., V.-N. Nguyen and M.V. Bhat, Efficient direct solvers for large-scale computational fluid dynamics problems 87 (1991) 253- 265
745. Haber, R.B. and J.F. Abel, Initial equilibrium solution methods for cable reinforced membranes, Part I - Formulations 30 (1982) 263- 284

746. Haber, R.B. and J.F. Abel, Initial equilibrium solution methods for cable reinforced membranes, Part II - Implementation 30 (1982) 285- 306
747. Haber, R.B., A mixed Eulerian-Lagrangian displacement model for large-deformation analysis in solid mechanics (Corrigendum, 49 (1985) 121) 43 (1984) 277- 292
748. Hadhri, T., A mixed finite element method for the elastoplastic plate bending and buckling 50 (1985) 1- 23
749. Haftka, R.T. and R.V. Grandhi, Structural shape optimization - a survey 57 (1986) 91- 106
750. Haftka, R.T., J.A. Nachlas, L.T. Watson, T. Rizzo and R. Desai, Two-point constraint approximation in structural optimization 60 (1987) 289- 301
751. Hajela, P. and A. Lamb, Automated structural synthesis for nondeterministic loads 57 (1986) 25- 36
752. Haken, H., Order in chaos 52 (1985) 635- 652
753. Hallquist, J.O., G.L. Goudreau and D.J. Benson, Sliding interfaces with contact-impact in large-scale Lagrangian computations 51 (1985) 107- 137
754. Halpern, J., Travelling time on dense networks 10 (1977) 1- 11
755. Han, T., J.A.C. Humphrey and B.E. Launder, A comparison of hybrid and quadratic-upstream differencing in high Reynolds number elliptic flows (see also 35 (1982) 349-350) 29 (1981) 81- 95
756. Hanafy, A.A.R., Multi-search optimization techniques 8 (1976) 193- 200
757. Hanine, F. and A. Kourta, Performance of turbulence models to predict supersonic boundary layer flows 89 (1991) 221- 235
758. Hansbo, P. and A. Szepessy, A velocity-pressure streamline diffusion finite element method for the incompressible Navier-Stokes equations 84 (1990) 175- 192
759. Hansbo, P. and C. Johnson, Adaptive streamline diffusion methods for compressible flow using conservation variables 87 (1991) 267- 280
760. Hansbo, P., The characteristic streamline diffusion method for convection-diffusion problems 96 (1992) 239- 253
761. Hansbo, P., The characteristic streamline diffusion method for the time-dependent incompressible Navier-Stokes equations 99 (1992) 171- 186
762. Hanson, J.N., Computer aided symbolic solution of multi-point boundary value problems occurring in physics and engineering 25 (1981) 149- 177
763. Harari, I. and T.J.R. Hughes, Finite element methods for the Helmholtz equation in an exterior domain: Model problems 87 (1991) 59- 96
764. Harari, I. and T.J.R. Hughes, A cost comparison of boundary element and finite element methods for problems of time-harmonic acoustics 97 (1992) 77- 102
765. Harari, I. and T.J.R. Hughes, Analysis of continuous formulations underlying the computation of time-harmonic acoustics in exterior domains 97 (1992) 103- 124
766. Harari, I. and T.J.R. Hughes, What are  $C$  and  $h$ ? Inequalities for the analysis and design of finite element methods 97 (1992) 157- 192
767. Harari, I. and T.J.R. Hughes, Galerkin/least-squares finite element methods for the reduced wave equation with non-reflecting boundary conditions in unbounded domains 98 (1992) 411- 454
768. Harbord, R. and M. Gellert, Progress in symmetric formulation of the incompressible Navier-Stokes equations 83 (1990) 201- 209

769. Harris, P.J., A boundary element method for the Helmholtz equation using finite part integration 95 (1992) 331- 342
770. Harrison, D., T.J.W. Ward and J.R. Whiteman, Finite element analysis of plates with nonlinear properties 34 (1982) 1019-1034
771. Haslinger, J. and P. Neittaanmäki, On different finite element methods for approximating the gradient of the solution to the Helmholtz equation 42 (1984) 131- 148
772. Hassan, A.A., H. Sobieczky and A.R. Seebass, Shock-free transonic airfoils with a given pressure distribution 58 (1986) 285- 304
773. Hassan, K., Application of lower order integration schemes in linear shell problems 25 (1981) 279- 286
774. Hassan, O., K. Morgan and J. Peraire, An implicit/explicit scheme for compressible viscous high speed flows 76 (1989) 245- 258
775. Haug, E.J. and J.S. Arora, Design sensitivity analysis of elastic mechanical systems 15 (1978) 35- 62
776. Hayes, L., G. Pinder and M. Celia, Alternating-direction collocation for rectangular regions 27 (1981) 265- 277
777. Hayes, L.J. and S.V. Krishnamachari, Alternating direction along flow lines in a fluid flow problem 47 (1984) 187- 203
778. Hayes, L.J., S.R. Kennon and G.S. Dulikravich, Grid orthogonalization for curvilinear alternating-direction techniques 59 (1986) 141- 154
779. Hayhurst, D.R. and A.J. Krzeczowski, Numerical solution of creep problems 20 (1979) 151- 171
780. Healey, T.J., A group-theoretic approach to computational bifurcation problems with symmetry 67 (1988) 257- 295
781. Heinrich, J.C. and R.S. Marshall, Comment on: A finite element numerical solution of natural convection in enclosed cavities 25 (1981) 49- 50
782. Heinrich, J.C., Finite element approximation to buoyancy-driven flows with cyclic boundary conditions 48 (1985) 91- 100
783. Heinrich, J.C. and C.C. Yu, Finite element simulation of buoyancy-driven flows with emphasis on natural convection in a horizontal circular cylinder 69 (1988) 1- 27
784. Heinrich, J.C., Numerical simulations of the thermosolutal instability during directional solidification of a binary alloy 69 (1988) 65- 88
785. Heinrich, J.C., S. Felicelli and D.R. Poirier, Vertical solidification of dendritic binary alloys 89 (1991) 435- 461
786. Heinrich, J.C. and D. Connolly, Three-dimensional finite element analysis of self-acting foil bearings 100 (1992) 31- 43
787. Heinrichs, W., Algebraic spectral multigrid methods 80 (1990) 281- 286
788. Heise, U., Comparison of round-off errors in integral equation formulations of elastostatical boundary value problems 28 (1981) 145- 177
789. Heise, U., Combination of the boundary integral equation method and the extrapolation method 38 (1983) 291- 346
790. Heise, U., Asymptotic expansions of results of the boundary integral equation method for plane elastostatic problems 46 (1984) 39- 64
791. Heise, U., Dependence of the round-off error in the solution of boundary integral equations on a geometrical scale factor 62 (1987) 115- 126

792. Heise, U., Singular and fundamental solutions to potential and elasticity problems for a Riemann surface 83 (1990) 211- 230
793. Heise, U., Fundamental solutions of the Laplace operator and of Navier's elasticity operator for Riemann surfaces with two branch points 91 (1991) 1301-1325
794. Heise, U., Fundamental solutions to Laplace's potential operator and to Navier's elasticity operator for Riemann surfaces with finite and infinite numbers of sheets 96 (1992) 33- 43
795. Hendry, J.A., Singular problems and the global element method 21 (1980) 1- 15
796. Hendry, J.A., L.M. Delves and J. Mohamed, Iterative solution of the global element equations 35 (1982) 271- 283
797. Heng, Z., D. McCammond and B. Tabarrok, Stress determination in edge-cracked anisotropic plates by an extension of boundary-collocation method 54 (1986) 187- 195
798. Heng, Z. and D. McCammond, An improved numerical integration technique for boundary integral evaluation in anisotropic plate problems 97 (1992) 317- 320
799. Heppler, G.R. and J.S. Hansen, The influence of forcing conforming boundaries on a high precision enriched fracture element 36 (1983) 155- 166
800. Heppler, G.R. and J.S. Hansen, A Mindlin element for thick and deep shells 54 (1986) 21- 47
801. Herrera, I. and H. Gourgéon, Boundary methods, *c*-complete systems for Stokes problems 30 (1982) 225- 241
802. Hess, J.L., Higher order numerical solution of the integral equation for the two-dimensional Neumann problem 2 (1973) 1- 15
803. Hess, J.L., The problem of three-dimensional lifting potential flow and its solution by means of surface singularity distribution 4 (1974) 283- 319
804. Hess, J.L., The use of higher-order surface singularity distributions to obtain improved potential flow solutions for two-dimensional lifting airfoils 5 (1975) 11- 35
805. Hess, J.L., Review of integral-equation techniques for solving potential-flow problems with emphasis on the surface-source method 5 (1975) 145- 196
806. Hess, J.L., Improved solution for potential flow about arbitrary axisymmetric bodies by the use of a higher-order surface-source method 5 (1975) 297- 308
807. Heuser, G.E., R.J. Ribando and H.G. Wood, III, A numerical simulation of inertial waves in a rotating fluid 57 (1986) 207- 222
808. Hibbitt, H.D., E.B. Becker and L.M. Taylor, Nonlinear analysis of some slender pipelines 17/18 (1979) 203- 225
809. Hicks, D.L., The hydrocode convergence problem - Part 1 13 (1978) 79- 88
810. Hicks, D.L., The hydrocode convergence problem - Part 2 20 (1979) 303- 316
811. Hill, R.D. and G.I.N. Rozvany, Prager's layout theory: A nonnumeric computer method for generating optimal structural configurations and weight-influence surfaces 49 (1985) 131- 148
812. Hirt, C.W., J.D. Ramshaw and L.R. Stein, Numerical simulation of three-dimensional flow past bluff bodies 14 (1978) 93- 124
813. Hitchings, D. and P. Ward, The nonlinear steady-state response of cable networks 9 (1976) 191- 201

814. Hlaváček, I., J. Rosenberg, A.E. Beagles and J.R. Whiteman, Variational inequality formulation in strain space and finite element solution of an elasto-plastic problem with hardening 94 (1992) 93- 112
815. Ho, L.-W., Y. Maday, A.T. Patera and E.M. Rønquist, A high-order Lagrangian-decoupling method for the incompressible Navier-Stokes equations 80 (1990) 65- 90
816. Ho, L.-W. and A.T. Patera, A Legendre spectral element method for simulation of unsteady incompressible viscous free-surface flows 80 (1990) 355- 366
817. Hodge, P.G. Jr., Automatic piecewise linearization in ideal plasticity 10 (1977) 249- 272
818. Hoff, C. and P.J. Pahl, Practical performance of the  $\theta_1$ -method and comparison with other dissipative algorithms in structural dynamics 67 (1988) 87- 110
819. Hoff, C. and P.J. Pahl, Development of an implicit method with numerical dissipation from a generalized single-step algorithm for structural dynamics 67 (1988) 367- 385
820. Hoff, C., T.J.R. Hughes, G. Hulbert and P.J. Pahl, Extended comparison of the Hilber-Hughes-Taylor  $\alpha$ -method and the  $\Theta_1$ -method 76 (1989) 87- 93
821. Hogge, M.A., Integration operators for first order linear matrix differential equations 11 (1977) 281- 294
822. Hogge, M. and P. Gerrekens, One-dimensional finite element analysis of thermal ablation with pyrolysis 33 (1982) 609- 634
823. Holla, V.S., K.P. Rao, C.B. Asthana and A. Arokiaswamy, Aerodynamic characteristics of pretensioned elastic membrane rectangular sailwings 44 (1984) 1- 16
824. Holmes, A.G. and C.M.M. Ettles, A study of iterative solution techniques for elliptic partial differential equations with particular reference to the Reynolds equation 5 (1975) 309- 328
825. Holt, M. and T.D. Taylor, High speed flow past a cone with large wall injection velocities 16 (1978) 281- 289
826. Holz, K.-P., A high-order time integration scheme for open channel flow 8 (1976) 117- 124
827. Hopkins, T.R. and R. Wait, A comparison of numerical methods for the solution of quasilinear partial differential equations 9 (1976) 181- 190
828. Hopkins, T.R. and R. Wait, Some quadrature rules for Galerkin methods using  $B$ -spline basis functions 19 (1979) 401- 416
829. Horrigmoe, G. and P.G. Bergan, Incremental variational principles and finite element models for nonlinear problems 7 (1976) 201- 217
830. Horrigmoe, G. and P.G. Bergan, Nonlinear analysis of free-form shells by flat finite elements 16 (1978) 11- 35
831. Hromadka II, T.V. and G.C. Pardoen, Application of the CVBEM to nonuniform St. Venant torsion 53 (1985) 149- 161
832. Hryniewicz, Z., Vibration of a rigid body on an elastic half-plane 24 (1980) 113- 122
833. Hryniewicz, Z., Dynamic response of a rigid strip on an elastic half-space 25 (1981) 355- 364
834. Hryniewicz, Z., Coupled vibration of a rigid rectangular block bonded to an elastic half-space 37 (1983) 329- 339
835. Hsiao, K.-M. and H.-C. Hung, Large-deflection analysis of shell structure by using co-rotational total Lagrangian formulation 73 (1989) 209- 225



836. Hsiao, K.-M. and J.-Y. Jang, Dynamic analysis of planar flexible mechanisms by co-rotational formulation 87 (1991) 1- 14
837. Hsieh, C.C. and J.S. Arora, Design sensitivity analysis and optimization of dynamic response 43 (1984) 195- 219
838. Hsieh, C.C. and J.S. Arora, A hybrid formulation for treatment of pointwise state variable constraints in dynamic response optimization 48 (1985) 171- 189
839. Hsieh, C.K. and A.J. Kassab, Complex variable boundary element methods for the solution of potential problems in simply and multiply connected domains 86 (1991) 189- 213
840. Huan, S.-L., B.C. McInnis and E.D. Denman, Identification of structural systems using naturally induced vibration data in the presence of measurement noise 41 (1983) 123- 128
841. Huang, C.-Y. and G.S. Dulikravich, Stream function and stream-function-coordinate (SFC) formulation for inviscid flow field calculations 59 (1986) 155- 157
842. Huang, C.-Y. and G.S. Dulikravich, Fast iterative algorithms based on optimized explicit time stepping 63 (1987) 15- 36
843. Huang, P.G., B.E. Launder and M.A. Leschziner, Discretization of non-linear convection processes: A broad-range comparison of four schemes 48 (1985) 1- 24  
69 (1988) 277- 324
844. Huerta, A. and W.K. Liu, Viscous flow with large free surface motion 8 (1976) 249- 276
845. Hughes, T.J.R., R.L. Taylor, J.L. Sackman, A. Curnier and W. Kanoknukulchai, A finite element method for a class of contact-impact problems 10 (1977) 135- 139
846. Hughes, T.J.R., Unconditionally stable algorithms for nonlinear heat conduction 17/18 (1979) 159- 182
847. Hughes, T.J.R., K.S. Pister and R.L. Taylor, Implicit-explicit finite elements in nonlinear transient analysis 26 (1981) 331- 362
848. Hughes, T.J.R. and W.K. Liu, Nonlinear finite element analysis of shells: Part I. Three-dimensional shells 27 (1981) 167- 181
849. Hughes, T.J.R. and W.K. Liu, Nonlinear finite element analysis of shells - Part II. Two-dimensional shells 29 (1981) 329- 349
850. Hughes, T.J.R., W.K. Liu and T.K. Zimmermann, Lagrangian-Eulerian finite element formulation for incompressible viscous flows 36 (1983) 241- 254
851. Hughes, T.J.R., I. Levit and J. Winget, An element-by-element solution algorithm for problems of structural and solid mechanics 39 (1983) 69- 82
852. Hughes, T.J.R. and E. Carnoy, Nonlinear finite element shell formulation accounting for large membrane strains 45 (1984) 217- 284
853. Hughes, T.J.R. and T.E. Tezduyar, Finite element methods for first-order hyperbolic systems with particular emphasis on the compressible Euler equations 54 (1986) 223- 234
854. Hughes, T.J.R., L.P. Franca and M. Mallet, A new finite element formulation for computational fluid dynamics: I. Symmetric forms of the compressible Euler and Navier-Stokes equations and the second law of thermodynamics 54 (1986) 341- 355
855. Hughes, T.J.R., M. Mallet and A. Mizukami, A new finite element formulation for computational fluid dynamics: II. Beyond SUPG



856. Hughes, T.J.R. and M. Mallet, A new finite element formulation for computational fluid dynamics: III. The generalized streamline operator for multidimensional advective-diffusive systems (Errata, 62 (1987) 111) 58 (1986) 305- 328
857. Hughes, T.J.R. and M. Mallet, A new finite element formulation for computational fluid dynamics: IV. A discontinuity-capturing operator for multidimensional advective-diffusive systems 58 (1986) 329- 336
858. Hughes, T.J.R., L.P. Franca and M. Balestra, A new finite element formulation for computational fluid dynamics: V. Circumventing the Babuška-Brezzi condition: A stable Petrov-Galerkin formulation of the Stokes problem accommodating equal-order interpolations (Errata, 62 (1987) 111) 59 (1986) 85- 99
859. Hughes, T.J.R., R.M. Ferencz and J.O. Hallquist, Large-scale vectorized implicit calculations in solid mechanics on a CRAY X-MP/48 utilizing EBE preconditioned conjugate gradients 61 (1987) 215- 248
860. Hughes, T.J.R., L.P. Franca and M. Mallet, A new finite element formulation for computational fluid dynamics: VI. Convergence analysis of the generalized SUPG formulation for linear time-dependent multidimensional advective-diffusive systems 63 (1987) 97- 112
861. Hughes, T.J.R. and L.P. Franca, A new finite element formulation for computational fluid dynamics: VII. The Stokes problem with various well-posed boundary conditions: Symmetric formulations that converge for all velocity/pressure spaces 65 (1987) 85- 96
862. Hughes, T.J.R. and G.M. Hulbert, Space-time finite element method for elastodynamics: Formulations and error estimates 66 (1988) 339- 363
863. Hughes, T.J.R. and L.P. Franca, A mixed finite element formulation for Reissner-Mindlin plate theory: Uniform convergence of all higher-order spaces 67 (1988) 223- 240
864. Hughes, T.J.R. and F. Brezzi, On drilling degrees of freedom 72 (1989) 105- 121
865. Hughes, T.J.R., L.P. Franca and G.M. Hulbert, A new finite element formulation for computational fluid dynamics: VIII. The Galerkin/least-squares method for advective-diffusive equations 73 (1989) 173- 189
866. Huisman, W.C. and Y. Yavin, Numerical studies of the performance of an optimally controlled nonlinear stochastic oscillator 21 (1980) 171- 191
867. Hulbert, G.M. and T.J.R. Hughes, Space-time finite element methods for second-order hyperbolic equations 84 (1990) 327- 348
868. Hulbert, G.M., Discontinuity-capturing operators for elastodynamics 96 (1992) 409- 426
869. Hurez, P., P.A. Tanguy and F.H. Bertrand, A finite element analysis of die swell with pseudoplastic and viscoplastic fluids 86 (1991) 87- 103
870. Hussaini, M.Y. and K.J. Devasia, An integral solution to a nonlinear diffusion problem 13 (1978) 119- 123
871. Hutchins, G.J. and A.I. Soler, Extended validity of single segment stepwise integration schemes for solution of two-point boundary value problems 1 (1972) 307- 316
872. Idelsohn, S., On the use of deep, shallow or flat shell finite elements for the analysis of thin shell structures 26 (1981) 321- 330

873. Idelsohn, S., G. Laschet and C. Nyssen, Pre- and post-degradation analysis of composite materials with different moduli in tension and compression 30 (1982) 133- 149
874. Idelsohn, S.R. and A. Cardona, A reduction method for nonlinear structural dynamic analysis 49 (1985) 253- 279
875. Iding, R.H., K.S. Pister and R.L. Taylor, Identification of nonlinear elastic solids by a finite element method 4 (1974) 121- 142
876. Ikeda, K. and K. Murota, Bifurcation analysis of symmetric structures using block-diagonalization 86 (1991) 215- 243
877. Imshennik, V.S., O.V. Lokutsievskii, L.G. Khazin, M.D. Gabovich and A.P. Naida, Mathematical simulation and experimental analysis of nonlinear interaction of positive and negative ion beams 9 (1976) 1- 23
878. Ioakimidis, N.I., Two methods for the numerical solution of Bueckner's singular integral equation for plane elasticity crack problems 31 (1982) 169- 177
879. Ioakimidis, N.I., A natural quadrature formula for the numerical evaluation of the MacGregor-Westergaard complex potentials in crack problems 31 (1982) 221- 231
880. Ioakimidis, N.I., A modification of the quadrature method for the direct numerical solution of singular integral equations 46 (1984) 1- 13
881. Ioakimidis, N.I. and M.S. Pitta, Remarks on the Gaussian quadrature rule for finite-part integrals with a second-order singularity 69 (1988) 325- 343
882. Ioakimidis, N.I., Application of the conformal mapping and the complex path-independent integrals to the location of elliptical holes and inclusions in plane elasticity problems 84 (1990) 1- 14
883. Ioakimidis, N.I., Application of computer algebra to the iterative solution of singular integral equations 94 (1992) 229- 237
884. Iranzo, V. and A. Falqués, Some spectral approximations for differential equations in unbounded domains 98 (1992) 105- 126
885. Isaacs, L.T., Automated algebraic integration of products of interpolation functions 23 (1980) 175- 183
886. Iskandar, L. and M.S.E.-D. Mohamedein, Solitary waves interaction for the BBM equation 96 (1992) 361- 372
887. Issa, A. and M.M. Zaman, A cylindrical tank-foundation-halfspace interaction using an energy approach 56 (1986) 47- 60
888. Jaamei, S., F. Frey and P. Jetteur, Nonlinear thin shell finite element with six degrees of freedom per node 75 (1989) 251- 266
889. Jacquotte, O.-P. and J.T. Oden, Analysis of hourglass instabilities and control in underintegrated finite element methods 44 (1984) 339- 363
890. Jacquotte, O.-P., Stability, accuracy, and efficiency of some underintegrated methods in finite element computations 50 (1985) 275- 293
891. Jacquotte, O.-P. and J.T. Oden, An accurate and efficient a posteriori control of hourglass instabilities in underintegrated linear and nonlinear elasticity 55 (1986) 105- 128
892. Jacquotte, O.-P., A mechanical model for a new grid generation method in computational fluid dynamics 66 (1988) 323- 338
893. Jain, M.K. and T. Aziz, Spline function approximation for differential equations 26 (1981) 129- 143

894. Jain, M.K., S.R.K. Iyengar and A.C.R. Pillai, Difference schemes based on splines in compression for the solution of conservation laws 38 (1983) 137- 151
895. Jain, M.K. and T. Aziz, Cubic spline solution of two-point boundary value problems with significant first derivatives 39 (1983) 83- 91
896. Jain, M.K., S.R.K. Iyengar and G.S. Subramanyam, Variable mesh methods for the numerical solution of two-point singular perturbation problems 42 (1984) 273- 286
897. Jain, N.K., K. Singhal and K. Huseyin, On roots of functional lambda matrices 40 (1983) 277- 292
898. Jain, P.C. and D.N. Holla, General finite difference approximation for the wave equation with variable coefficients using a cubic spline technique 15 (1978) 175- 180
899. Jain, P.C. and Labib Iskandar, Numerical solutions of the regularized long-wave equation 20 (1979) 195- 201
900. Jain, R.K. and R. Kumar, A sixth-order modification of the Stiefel-Bettis method for nonlinearly damped oscillators 72 (1989) 187- 193
901. Jaluria, Y. and A.P. Singh, Temperature distribution in a moving material subjected to surface energy transfer 41 (1983) 145- 157
902. James, R.M., On the remarkable accuracy of the vortex lattice method 1 (1972) 59- 79
903. James, R.M., The theory and design of two-airfoil lifting systems 10 (1977) 13- 43
904. James, R.M., A general analytical method for axisymmetric incompressible potential flow about bodies of revolution 12 (1977) 47- 67
905. Jameson, A. and W. Schmidt, Some recent developments in numerical methods for transonic flows 51 (1985) 467- 493
906. Jami, A. and M. Polyzakis, A finite element solution of diffraction problems in unbounded domains 29 (1981) 1- 18
907. Jang, J.-Y. and W.-J. Chang, Buoyancy-induced inclined boundary layer flow in a saturated porous medium 68 (1988) 333- 344
908. Jauberteau, F., C. Rosier and R. Temam, A nonlinear Galerkin method for the Navier-Stokes equations 80 (1990) 245- 260
909. Jawed, A.H. and A.J. Morris, Higher-order updates for dynamic responses in structural optimization 49 (1985) 175- 201
910. Jehle, U. and H.P. Mlejnek, Application and implementation of approximate explicit models in optimum structural design 83 (1990) 33- 59
911. Jensen, S. and M. Suri, On the  $L_2$  error for the  $p$ -version of the finite element method over polygonal domains 97 (1992) 233- 243
912. Jiang, B.-N. and C.L. Chang, Least-squares finite elements for the Stokes problem 78 (1990) 297- 311
913. Jiang, B.-N. and L.A. Povinelli, Least-squares finite element method for fluid dynamics 81 (1990) 13- 37
914. Jinyun, Y., Symmetric Gaussian quadrature formulae for tetrahedral regions 43 (1984) 349- 353
915. Jirousek, J. and N. Leon, A powerful finite element for plate bending 12 (1977) 77- 96
916. Jirousek, J., Basis for development of large finite elements locally satisfying all field equations 14 (1978) 65- 92
917. Johan, Z., T.J.R. Hughes and F. Shakib, A globally convergent matrix-free algorithm for implicit time-marching schemes arising in finite element analysis in fluids 87 (1991) 281- 304

918. Johan, Z., T.J.R. Hughes, K.K. Mathur and S.L. Johnsson, A data parallel finite element method for computational fluid dynamics on the Connection Machine system 99 (1992) 113- 134
919. Johnsen, T.L., Note on symmetric decomposition of some special symmetric matrices 1 (1972) 301- 306
920. Johnsen, T.L., On the computation of natural modes of an unsupported vibrating structure by simultaneous iteration 2 (1973) 305- 322
921. Johnsen, T.L. and J.R. Roy, On systems of linear equations of the form  $A^T A x = b$ ; error analysis and certain consequences for structural applications 3 (1974) 357- 374  
16 (1978) 177- 184
922. Johnson, C., A finite element method for consolidation of clay 45 (1984) 285- 312
923. Johnson, C., U. Nävert and J. Pitkäranta, Finite element methods for linear hyperbolic problems 82 (1990) 301- 322
924. Johnson, C., Adaptive finite element methods for diffusion and convection problems 100 (1992) 45- 62
925. Johnson, C., A new approach to algorithms for convection problems which are based on exact transport + projection 76 (1989) 17- 40  
39 (1983) 107- 116
926. Jonker, B., A finite element dynamic analysis of spatial mechanisms with flexible links 75 (1989) 127- 140
927. Joseph, M., Finite difference representations of vorticity transport
928. Juvanon du Vachat, R., A general formulation for nonlinear initialization of a numerical weather prediction model. Experiments with a shallow-water limited area model 67 (1988) 131- 147
929. Kačianauskas, R. and A. Čyras, The integral yield criterion of finite elements and its application to limit analysis and optimization problems of thin-walled elastic-plastic structures 10 (1977) 63- 74
930. Kaley, I. and J. Gluck, Cyclic elastic-plastic dynamic analysis by the finite element method 26 (1981) 363- 375
931. Kamat, M.P., L.T. Watson and D.J. Vanden Brink, An assessment of quasi-Newton sparse update techniques for nonlinear structural analysis 19 (1979) 205- 222
932. Kamdar, D.S. and D.E. Beskos, Numerical methods for elastic structural stability analysis 89 (1991) 485- 496
933. Kamel, H.A. and L. Chen, Integration of solid modeling and finite element generation 92 (1991) 1- 32
934. Kamoulakos, A., A catenoidal patch test for the inextensional bending of thin shell finite elements 58 (1986) 121- 134
935. Kanagasundaram, S. and B.L. Karihaloo, Limitations of Galerkin's method in optimal design of beam columns 51 (1985) 79- 106
936. Kanarachos, A., P. Makris and M. Koch, Localization of multi-constrained optima and avoidance of local optima in structural optimization problems 63 (1987) 155- 165
937. Kanarachos, A. and C. Provatidis, Performance of mass matrices for the BEM dynamic analysis of wave propagation problems 71 (1988) 151- 165
938. Kanarachos, A. and C. Provatidis, On the symmetrization of the BEM formulation

939. Kane, J.H., B.L. Kashava Kumar and S. Saigal, An arbitrary condensing, noncondensing solution strategy for large scale, multi-zone boundary element analysis 79 (1990) 219- 244
940. Kaneko, I., Complete solutions for a class of elastic-plastic structures (see also 28 (1981) 259) 21 (1980) 193- 209
941. Kaneko, I. and G. Maier, Optimum design of plastic structures under displacement constraints (see also 35 (1982) 119) 27 (1981) 369- 391
942. Kaneko, I., C. Mazzarella and C. Polizzotto, Methods for computing optimal bounds on deformation in the theory of workhardening adaptation 37 (1983) 185- 205  
31 (1982) 1- 18
943. Kant, T., Numerical analysis of thick plates
944. Kaplan, B.Z., Economical digital simulation of parametric electromechanical devices 6 (1975) 355- 362
945. Kaplan, B.Z., Use of complex variables for the solution of certain nonlinear systems 13 (1978) 281- 291
946. Kaplan, B.Z., A new method for generating precisely triangular waves, square waves and trapezoidal waves in three phases 37 (1983) 177- 183
947. Kaplan, B.Z. and D. Yardeni, Development of a new three-phase triangular wave oscillator (see also 68 (1988) 249) 63 (1987) 305- 312
948. Karabalis, D.L. and D.E. Beskos, Dynamic response of 3-D embedded foundations by the boundary element method 56 (1986) 91- 119
949. Karafiat, A., On convergence of solutions for FDM with irregular mesh in Neumann problem 72 (1989) 91- 103
950. Karageorghis, A., Numerical solution of a shallow dam problem by a boundary element method 61 (1987) 265- 276
951. Karageorghis, A., Chebyshev spectral methods for solving two-point boundary value problems arising in heat transfer 70 (1988) 103- 121
952. Karageorghis, A., The numerical solution of laminar flow in a re-entrant tube geometry by a Chebyshev spectral element collocation 100 (1992) 339- 358
953. Karamanlidis, D., Finite element analysis of two-dimensional shear flexible frame structures: Nonlinear analysis 67 (1988) 55- 68
954. Karamanlidis, D. and R. Jasti, Finite element analysis of two-dimensional shear flexible frame structures: Linear analysis 67 (1988) 161- 169
955. Karamanlidis, D. and V. Prakash, Exact transfer and stiffness matrices for a beam/column resting on a two-parameter foundation 72 (1989) 77- 89
956. Karamanlidis, D. and V. Agrawal, Analysis of stiffened shear-flexible orthotropic panels 73 (1989) 133- 146
957. Karniadakis, G.E., Spectral element-Fourier methods for incompressible turbulent flows 80 (1990) 367- 380
958. Kaveh, A., Improved cycle bases for the flexibility analysis of structures 9 (1976) 267- 272
959. Kaveh, A., A combinatorial optimization problem; optimal generalized cycle bases 20 (1979) 39- 51
960. Kaveh, A., Suboptimal cycle bases of graphs for the flexibility analysis of skeletal structures 71 (1988) 259- 271  
55 (1986) 339- 348
961. Keast, P., Moderate-degree tetrahedral quadrature formulas
962. Kelly, D.W., A dual formulation for generating information about constrained optima in automated design 5 (1975) 339- 352



963. Kelly, D.W., A.J. Morris, P. Bartholomew and R.O. Stafford, A review of techniques for automated structural design 12 (1977) 219- 242
964. Kennon, S.R. and G.S. Dulikravinich, Optimum acceleration factors for iterative solution of linear and nonlinear differential systems 47 (1984) 357- 367
965. Kermanidis, T., Kupradze's functional equation for the torsion problem of prismatic bars - Part 1 7 (1976) 39- 46
966. Kermanidis, T., Kupradze's functional equation for the torsion problem of prismatic bars - Part 2 7 (1976) 249- 259
967. Kermode, M., A. Mc Kerrell and L.M. Delves, The calculation of singular coefficients 50 (1985) 205- 215
968. Keshavarzi, M., A modified integral equation applied to problems of elastostatics 16 (1978) 1- 9
969. Key, S.W., A finite element procedure for the large deformation dynamic response of asixymmetric solids 4 (1974) 195- 218
970. Key, S.W., R.D. Krieg and K.-J. Bathe, On the application of the finite element method to metal-forming processes - Part I 17/18 (1979) 597- 608
971. Key, S.W. and R.D. Krieg, On the numerical implementation of inelastic time dependent and time independent, finite strain constitutive equations in structural mechanics 33 (1982) 439- 452
972. Khaliq, A.Q.M. and E.H. Twizell, Backward difference replacements of the space derivative in first-order hyperbolic equations 43 (1984) 45- 56
973. Khennane, A. and G. Baker, Plasticity models for the biaxial behaviour of concrete at elevated temperatures, Part I: Failure criterion 100 (1992) 207- 223
974. Khennane, A. and G. Baker, Plasticity models for the biaxial behaviour of concrete at elevated temperatures, Part II: Implementation and simulation tests 100 (1992) 225- 248
975. Khulief, Y.A., On the finite element dynamic analysis of flexible mechanisms 97 (1992) 23- 32
976. Kiciman, Ö.K. and E.P. Popov, A general finite element model for shells of arbitrary geometry 13 (1978) 45- 58
977. Kida, T. and T. Take, Note on the box method and the linear segment method in the integral equation of thin aerofoil theory 36 (1983) 127- 145
978. Kida, T. and T. Take, A vortex-lattice method in the linear theory on a two-dimensional supercavitating flat plate foil 36 (1983) 191- 205
979. Kiehne, T.M., D.E. Wilson and R.D. Matthews, Numerical solution technique for transient, two-dimensional combustion with multi-step kinetics 83 (1990) 9- 31
980. Kikuchi, F., On the validity of the finite element analysis of circular arches represented by an assemblage of beam elements 5 (1975) 253- 276
981. Kikuchi, F., Accuracy of some finite element models for arch problems (see also 43 (1984) 115-116) 35 (1982) 315- 345
982. Kikuchi, F., Mixed and penalty formulations for finite element analysis of an eigenvalue problem in electromagnetism 64 (1987) 509- 521
983. Kikuchi, N., Remarks on 4CST-elements for incompressible materials 37 (1983) 109- 123
984. Kikuchi, N., Adaptive grid-design methods for finite element analysis 55 (1986) 129- 160
985. Kikuchi, N., K.Y. Chung, T. Torigaki and J.E. Taylor, Adaptive finite element methods for shape optimization of linearly elastic structures 57 (1986) 67- 89



986. Kikuta, M., H. Togoh and M. Tanaka, Boundary element analysis of nonlinear transient heat conduction problems 62 (1987) 321- 329
987. Kim, S.J. and J.T. Oden, Finite element analysis of a class of problems in finite elastoplasticity based on the thermodynamical theory of materials of type N 53 (1985) 277- 302
988. Kim, S.-S. and E.J. Haug, A recursive formulation for flexible multibody dynamics, Part I: Open-loop systems 71 (1988) 293- 314
989. Kim, S.-S. and E.J. Haug, A recursive formulation for flexible multibody dynamics, Part II: Closed loop systems 74 (1989) 251- 269
990. Kim, S.-W. and Y.-S. Chen, A finite element computation of turbulent boundary layer flows with an algebraic stress turbulence model 66 (1988) 45- 63
991. King, R.B. and V. Sonnad, Implementation of an element-by-element solution algorithm for the finite element method on a coarse-grained parallel computer 65 (1987) 47- 59
992. Kirsch, U. and D. Benardout, Optimal design of elastic trusses by approximate equilibrium 22 (1980) 347- 359
993. Kirsch, U., Approximate structural reanalysis based on series expansion 26 (1981) 205- 223
994. Kirsch, U., On some simplified models for optimal design of structural systems 48 (1985) 155- 169
995. Kirsch, U., Optimal topologies of truss structures 72 (1989) 15- 28
996. Kitahara, M. and J.D. Achenbach, BIE method to analyze wave motion in solids with periodically distributed cavities 64 (1987) 523- 536
997. Klarbring, A., A mathematical programming approach to three-dimensional contact problems with friction 58 (1986) 175- 200
998. Kleiber, M. and A. Zacharski, Numerical analysis of local instabilities in elastic and elasto-plastic prismatic plate assemblies 31 (1982) 149- 168
999. Kleiber, M., J.A. König and A. Sawczuk, Studies on plastic structures: stability, anisotropic hardening, cyclic loads 33 (1982) 487- 556
1000. Kleiber, M. and T.D. Hien, Nonlinear dynamics of complex axisymmetric structures under arbitrary loads 37 (1983) 93- 107
1001. Kleiber, M., Computational coupled non-associative thermo-plasticity 90 (1991) 943- 967
1002. Kleinstreuer, C. and M.R. Patterson, An interactive finite difference preprocessor for three-dimensional fluid flow systems 27 (1981) 1- 12
1003. Kłosowiak, T. and M. Machura, The use of minimization methods in the two-dimensional cross-spring hinge problem 12 (1977) 337- 351
1004. Knudson, W. and D. Nagy, Discrete data smoothing by spline interpolation with application to initial geometry of cable nets 4 (1974) 321- 348
1005. Knupp, P.M., On the invertibility of the isoparametric map 78 (1990) 313- 329
1006. Kobayashi, N., Computer simulation of heat, mass and fluid flows in a melt during Czochralski crystal growth 23 (1980) 21- 33
1007. Kocher, G., Industrial application of linear/nonlinear dynamics of multibody systems 91 (1991) 1397-1402
1008. Koh, B.C. and N. Kikuchi, New improved hourglass control for bilinear and trilinear elements in anisotropic linear elasticity 65 (1987) 1- 46
1009. Koko, T.S. and M.D. Olson, Nonlinear transient response of stiffened plates to air blast loading by a superelement approach 90 (1991) 737- 760
1010. Kolymbas, D., Ice forces on conical offshore structures 60 (1987) 217- 231

1011. Kondapalli, P.S., D.J. Shippy and G. Fairweather, The method of fundamental solutions for transmission and scattering of elastic waves 96 (1992) 255- 269
1012. Kondo, N., N. Tosaka and T. Nishimura, Third-order upwind finite element formulations for incompressible viscous flow problems 93 (1991) 169- 187
1013. König, J.A. and G. Maier, Adaptation of rigid-work-hardening discrete structures subjected to load and temperature cycles and second-order geometric effects (Errata, 12 (1977) 393) 8 (1976) 37- 50
1014. König, M., D. Nagy and P. Streiner, Buckling analysis with the ASKA program system 16 (1978) 185- 212
1015. König, M., The equivalent solid plate concept in the finite element analysis of tube bundle heat exchangers 20 (1979) 351- 358
1016. König, M., A sequel to the article "Buckling analysis with the ASKA program system" 26 (1981) 241- 246
1017. König, M., Technical note on mode superposition in buckling analysis 28 (1981) 117- 125
1018. Koski, J. and R. Silvennoinen, Pareto optima of isostatic trusses 31 (1982) 265- 279
1019. Kounadis, A.N., T. Avraam and J. Mallis, On the reliability of classical divergence instability analyses of Ziegler's nonconservative model 95 (1992) 317- 330
1020. Kovaljov, O.B., N.A. Larkin, W.M. Fomin and N.N. Yanenko, The solution of nonhomogeneous thermal problems and the Stefan single-phase problem in arbitrary domains 22 (1980) 259- 271
1021. Kremer, Z. and M.A. Slonim, A novel computational approach for the analysis of transient and steady-state processes in an LC chopper 72 (1989) 1- 13
1022. Kreskovsky, J.P., S.J. Shamroth and W.R. Briley, A numerical study of the unsteady leading edge separation bubble on an oscillating airfoil 11 (1977) 39- 56
1023. Kreskovsky, J.P. and S.J. Shamroth, An implicit marching method for the two-dimensional reduced Navier-Stokes equations at arbitrary Mach number 13 (1978) 307- 334
1024. Kriz, J., Variations of a differential system containing discontinuities 26 (1981) 247- 258
1025. Kröplin, B., D. Dinkler and J. Hillmann, An energy perturbation applied to nonlinear structural analysis 52 (1985) 885- 897
1026. Kröplin, B.-H. and D. Dinkler, A creep type strategy used for tracing the load path in elastoplastic post buckling analysis 32 (1982) 365- 376
1027. Ku, H.-C., T.D. Taylor and R.S. Hirsh, A pseudospectral matrix element method for calculation of double diffusive layers near corners 75 (1989) 141- 151
1028. Ku, H.C., T.D. Taylor and R.S. Hirsh, Pseudospectral matrix element methods for flow in complex geometry 80 (1990) 381- 388
1029. Kulak, R.F., Adaptive contact elements for three-dimensional explicit transient analysis 72 (1989) 125- 151
1030. Kunar, R.R. and A.S.L. Chan, A method for the configurational optimisation of structures 7 (1976) 331- 350
1031. Kung, W.-C. and K.H. Hohenemser, Eigenvalue analysis for coupled large linear damped structures 12 (1977) 69- 75
1032. Kuznetsov, Y.A., Multigrid domain decomposition methods for elliptic problems 75 (1989) 185- 193
1033. La Hargue, J.P. and J.P. Mascarell, Internal design of the E3D inter-discipline environment 75 (1989) 227- 240

1034. Lachat, J.C. and J.O. Watson, Progress in the use of boundary integral equations, illustrated by examples 10 (1977) 273- 289
1035. Lacombe, C. and C. Bédard, Face-apex projectors for the interpolation function of a general tetrahedral mid-edge finite element 68 (1988) 177- 188
1036. Ladefoged, T., Triangular ring element with analytic expressions for stiffness and mass matrix 67 (1988) 171- 187
1037. Ladeveze, P., P. Marin, J.P. Pelle and J.L. Gastine, Accuracy and optimal meshes in finite element computation for nearly incompressible materials 94 (1992) 303- 315
1038. Ladopoulos, E.G., On the numerical solution of the finite-part singular integral equations of the first and the second kind used in fracture mechanics 65 (1987) 253- 266
1039. Lahargue, J.P. and Soubbaramayer, A numerical model for the investigation of the flow and isotope concentration field in an ultracentrifuge 15 (1978) 259- 273
1040. Lainoff, S.M., Algorithmic redesign of structures with box-shaped compartments 28 (1981) 37- 48
1041. Lamblin, D., C. Cinquini and G. Guerlement, Application of linear programming to the optimal plastic design of circular plates subject to technological constraints 13 (1978) 233- 243
1042. Langer, F.D., H. Hemami and D.B. Brown, Constraint forces in holonomic mechanical systems 62 (1987) 255- 274
1043. Langlois, W.E. and K.-J. Lee, Hydrodynamics of neurons 9 (1976) 219- 242
1044. Langlois, W.E. and C.C. Shir, Digital simulation of flow patterns in the Czochralski crystal-pulling process 12 (1977) 145- 152
1045. Langlois, W.E., Hydrodynamics of neurons: a postscript 12 (1977) 153
1046. Langlois, W.E., Iterative solution of finite width foil-bearing problems 14 (1978) 249- 258
1047. Langlois, W.E., Conservative differencing procedures for rotationally symmetric flow with swirl 25 (1981) 315- 333
1048. LaPorte, F., On the design of an expert system guide for the use of scientific software 75 (1989) 241- 250
1049. Larsen, P.K. and E.P. Popov, Large displacement analysis of viscoelastic shells of revolution 3 (1974) 237- 253
1050. Lassmann, K., Numerical noise analysis: a new probabilistic technique 40 (1983) 111- 119
1051. Latinopoulos, P. and J. Ganoulis, Numerical simulation of oscillating flow through idealized sclerotic arteries 20 (1979) 279- 290
1052. Latinopoulos, P. and D. Tolikas, Propagation of acoustic waves in ducts with varying cross sections and viscous mean flow 23 (1980) 215- 224
1053. Lau, S.L. and S.W. Yuen, The Hopf bifurcation and limit cycle by the incremental harmonic balance method 91 (1991) 1109-1121
1054. Launder, B.E. and D.B. Spalding, The numerical computation of turbulent flows 3 (1974) 269- 289
1055. Laursen, M.E. and M. Gellert, Improved equilibrium finite elements 14 (1978) 125- 135
1056. Lavender, D.A. and D.R. Hayhurst, An assessment of higher-order isoparametric elements for solving an elastic problem 56 (1986) 139- 165
1057. Le Quére, P. and J. Pécheux, A three-dimensional pseudo-spectral algorithm for the computation of convection in a rotating annulus 80 (1990) 261- 271

1058. Le Tallec, P., Compatibility condition and existence results in discrete finite incompressible elasticity 27 (1981) 239- 259
1059. Le Tallec, P. and V. Ruas, On the convergence of the bilinear-velocity constant-pressure finite element method in viscous flow 54 (1986) 235- 243
1060. Le Tallec, P. and A. Lotfi, Decomposition methods for adherence problems in finite elasticity 68 (1988) 67- 82
1061. Lee, E.H., R.L. Mallett, T.C.T. Ting and W.H. Yang, Dynamic analysis of structural deformation and metal forming 5 (1975) 69- 82
1062. Lee, E.H., R.L. Mallett and W.H. Yang, Stress and deformation analysis of the metal extrusion process 10 (1977) 339- 353
1063. Lee, H.-C. and A.J. Wathen, On element-by-element preconditioning for general elliptic problems 92 (1991) 215- 229
1064. Lee, J.H.W., J. Peraire and O.C. Zienkiewicz, The characteristic-Galerkin method for advection-dominated problems - an assessment 61 (1987) 359- 369
1065. Lee, M.S., N. Kikuchi and R.A. Scott, Shape optimization in laminated composite plates 72 (1989) 29- 55
1066. Lee, S. and G.S. Dulikravich, Distributed minimal residual (DMR) method for acceleration of iterative algorithms 86 (1991) 245- 262
1067. Lee, S.-C., K.-L. Wong and C.-K. Chen, The finite element solution of laminar combined convection from a horizontal cylinder 50 (1985) 147- 161
1068. Lee, S.H. and S.S. Hsieh, Expedient implicit integration with adaptive time stepping algorithm for nonlinear transient analysis 81 (1990) 151- 172
1069. Lee, S.Y. and Y.H. Kuo, Divergence-type stability of a non-uniform column 84 (1990) 163- 173
1070. Lega, J., Defect-mediated turbulence 89 (1991) 419- 424
1071. Lehner, J.R. and S.C. Batterman, Static and dynamic finite deformations of cables using rate equations 2 (1973) 349- 366
1072. Leipholz, H.H.E., Variational principles for non-conservative problems, a foundation for a finite element approach 17/18 (1979) 609- 617
1073. Leipholz, H.H.E., On a generalization of the lower bound theorem for elastic rods and plates subjected to compressive follower forces 27 (1981) 101- 120
1074. Leipholz, H.H.E. and F. Pfindt, On the stability of rectangular, completely supported plates with uncoupling boundary conditions subjected to uniformly distributed follower forces 30 (1982) 19- 52
1075. Leipholz, H.H.E., On the energy criterion in the context of plate stability 32 (1982) 401- 414
1076. Leipholz, H.H.E., On direct methods in the calculus of variations 37 (1983) 57- 78
1077. Leipholz, H.H.E. and F. Pfindt, Application of extended equations of Galerkin to stability problems of rectangular plates with free edges and subjected to uniformly distributed follower forces 37 (1983) 341- 365
1078. Leipholz, H.H.E., An alternative to Liapunov's stability method 43 (1984) 293- 313
1079. Leipholz, H.H.E., An alternative to Liapunov's stability method and its application to higher-order systems (Errata, 54 (1986) 361) 47 (1984) 299- 314
1080. Leipholz, H.H.E., On the application of the energy method to continuous follower load systems 53 (1985) 259- 276
1081. Leipholz, H.H.E., On principles of stationarity for non-selfadjoint rod problems 59 (1986) 215- 226

1082. Leipholz, H.H.E., On Galerkin's method interpreted as a generalized integral transformation 65 (1987) 177- 189
1083. Lemaitre, J., Coupled elasto-plasticity and damage constitutive equations 51 (1985) 31- 49
1084. Lemanska, M., T. Auerbach and J. Mennig, Exact solution of the  $P_1$  time-dependent equations 5 (1975) 329- 338
1085. Lenoir, M. and A. Jami, A variational formulation for exterior problems in linear hydrodynamics 16 (1978) 341- 359
1086. Leonard, B.P., A stable and accurate convective modelling procedure based on quadratic upstream interpolation 19 (1979) 59- 98
1087. Leonard, B.-P., The ULTIMATE conservative difference scheme applied to unsteady one-dimensional advection 88 (1991) 17- 74
1088. Lepik, Ü. and M. Just, Automatic calculation for bending of rigid-plastic beams under dynamic loading 38 (1983) 19- 28
1089. Leroy, Y.M. and O. Chapuis, Localization in strain-rate-dependent solids 90 (1991) 969- 986
1090. Lesaint, P., On the convergence of Wilson's nonconforming element for solving the elastic problem 7 (1976) 1- 16
1091. Leschziner, M.A., Practical evaluation of three finite difference schemes for the computation of steady-state recirculating flows 23 (1980) 293- 312
1092. Leventhal, S.H., Method of moments for singular problems 6 (1975) 79- 100
1093. Levin, D, N. Papamichael and A. Sideridis, On the use of conformal transformations for the numerical solution of harmonic boundary value problems 12 (1977) 201- 218
1094. Lewis, R.I., Recent developments and engineering applications of the vortex cloud method 64 (1987) 153- 176
1095. Lewis, R.W., K. Morgan, H.R. Thomas and M. Strada, Drying-induced stresses in porous bodies - an elastoviscoplastic model 20 (1979) 291- 301
1096. Lewis, R.W., K. Morgan and K.H. Johnson, A finite element study of two-dimensional multiphase flow with particular reference to the five-spot problem 44 (1984) 17- 47
1097. Lewis, R.W. and Y. Zheng, Coarse optimization for complex systems: An application of orthogonal experiments 94 (1992) 63- 92
1098. Li, C.-P., Computational methods for shock waves in three-dimensional supersonic flow 87 (1991) 305- 327
1099. Li, H.-B., G.-M. Han, H.A. Mang and P. Torzicky, A new method for the coupling of finite element and boundary element discretized subdomains of elastic bodies 54 (1986) 161- 185
1100. Li, K.-T. and A.-X. Huang, Mathematical aspect of the stream-function equations of compressible turbomachinery flows and their finite element approximations using optimal control 41 (1983) 175- 194
1101. Li, Z.-C. and E. Dai, Numerical methods for calculating pressure distribution in gas bearings 31 (1982) 179- 187
1102. Li, Z.-C., Z.-Y. Cao and C.-S. Yu, A new method of stress calculation in elastic kinetics problems 36 (1983) 61- 69
1103. Li, Z.-C., A combined method for solving elliptic problems on unbounded domains 73 (1989) 191- 208



1104. Li, Z.-C. and T.D. Bui, Penalty-combined method and applications in solving elliptic problems with singularities 97 (1992) 291- 316
1105. Liao, C.Y. and S.N. Atluri, A finite element alternating method for evaluation of stress intensity factors for part-circular cracks subjected to arbitrary loadings 91 (1991) 1253-1270
1106. Lie-heng, W., A mathematical model of coupled plates and its finite element method 99 (1992) 43- 59
1107. Lim, O.K. and J.S. Arora, An active set RQP algorithm for engineering design optimization 57 (1986) 51- 65
1108. Lim, T.H., Numerical solution of the Riemann-Hilbert problem for a vertical jet under gravity 21 (1980) 45- 61
1109. Lin, J.I., An Element Eigenvalue Theorem and its application for stable time steps 73 (1989) 283- 294
1110. Lin, J.S. and P.L. Gould, Shells of revolution with local plasticity 65 (1987) 127- 145
1111. Lindeman, A.J., G.K. Leaf and H.G. Kaper, A computational analysis and evaluation of the finite element method for a class of nuclear reactor configurations 4 (1974) 97- 117
1112. Lions, J.L., Earth system models and mathematical remarks 89 (1991) 1- 9
1113. Lions, P.L., On Hartree and Hartree-Fock equations in atomic and nuclear physics 75 (1989) 53- 60
1114. Lipitakis, E.A. and D.J. Evans, Solving linear finite element systems by normalized approximate matrix factorization semi-direct methods 43 (1984) 1- 19
1115. Liu, B. and Beris, A.N., The stability of numerical approximations to nonlinear hyperbolic equations 76 (1989) 179- 204
1116. Liu, C.Y., W.R. Goodin and C.M. Lam, Numerical problems in the advection of pollutants 9 (1976) 281- 299
1117. Liu, G., D.-W. He and Y.-W. Shen, A quasi-frontal subspace iteration method for finite element dynamic analysis and its application 96 (1992) 109- 115
1118. Liu, N., N. Altiero and U. Sur, An alternative integral approach applied to kinked cracks in finite plane bodies 84 (1990) 211- 226
1119. Liu, W.K. and D.C. Ma, Computer implementation aspects for fluid-structure interaction problems 31 (1982) 129- 148
1120. Liu, W.K. and Y.F. Zhang, Improvement of mixed time implicit-explicit algorithms for thermal analysis of structures 37 (1983) 207- 223
1121. Liu, W.K., D. Lam and T. Belytschko, Finite element method for hydrodynamic mass with nonstationary fluid 44 (1984) 177- 211
1122. Liu, W.K., Y.F. Zhang and T. Belytschko, Implementation of mixed-time partition algorithms for nonlinear thermal analysis of structures 48 (1985) 245- 263
1123. Liu, W.K., J.S.-J. Ong and R.A. Uras, Finite element stabilization matrices - a unification approach 53 (1985) 13- 46
1124. Liu, W.K., E.S. Law, D. Lam and T. Belytschko, Resultant-stress degenerated-shell element (see also 72 (1989) 233) 55 (1986) 259- 300
1125. Liu, W.K., T. Belytschko and A. Mani, Probabilistic finite elements for nonlinear structural dynamics 56 (1986) 61- 81
1126. Liu, W.K. and J. Gvildys, Fluid-structure interaction of tanks with an eccentric core barrel 58 (1986) 51- 77
1127. Liu, W.K., T. Belytschko and H. Chang, An arbitrary Lagrangian-Eulerian finite element method for path-dependent materials 58 (1986) 227- 245



1128. Liu, W.K., G. Besterfield and T. Belytschko, Transient probabilistic systems 67 (1988) 27- 54
1129. Liu, W.K., H. Chang, J.-S. Chen and T. Belytschko, Arbitrary Lagrangian-Eulerian Petrov-Galerkin finite elements for nonlinear continua 68 (1988) 259- 310
1130. Liu, W.K., T. Belytschko and J.-S. Chen, Nonlinear versions of flexurally superconvergent elements 71 (1988) 241- 258
1131. Liu, W.K., J.-S. Chen, T. Belytschko and Y.F. Zhang, Adaptive ALE finite elements with particular reference to external work rate on frictional interface 93 (1991) 28.9- 216
1132. Liu, Y. and F.J. Rizzo, A weakly singular form of the hypersingular boundary integral equation applied to 3-D acoustic wave problems 96 (1992) 271- 287
1133. Löhner, R., K. Morgan and O.C. Zienkiewicz, The use of domain splitting with an explicit hyperbolic solver 45 (1984) 313- 329
1134. Löhner, R., K. Morgan and O.C. Zienkiewicz, An adaptive finite element procedure for compressible high speed flows 51 (1985) 441- 465
1135. Löhner, R., An adaptive finite element scheme for transient problems in CFD 61 (1987) 323- 338
1136. Löhner, R., Adaptive remeshing for transient problems 75 (1989) 195- 214
1137. Löhner, R., J. Camberos and M. Merriam, Parallel unstructured grid generation 95 (1992) 343- 357
1138. Lomax, R.J., Preservation of the conservation properties of the finite element method under local mesh refinement 12 (1977) 309- 314
1139. Loret, B. and J.H. Prevost, Accurate numerical solutions for Drucker-Prager elastic-plastic models 54 (1986) 259- 277
1140. Loret, B. and J.H. Prevost, Dynamic strain localization in elasto-(visco)-plastic solids, Part 1. General formulation and one-dimensional examples 83 (1990) 247- 273
1141. Loret, B., F. Hammoum and Y.F. Dafalias, A note on the accuracy of stress-point algorithms for anisotropic elastic-plastic solids 98 (1992) 399- 409
1142. Loula, A.F.D., T.J.R. Hughes and L.P. Franca, Petrov-Galerkin formulations of the Timoshenko beam problem 63 (1987) 115- 132
1143. Loula, A.F.D., T.J.R. Hughes, L.P. Franca and I. Miranda, Mixed Petrov-Galerkin methods for the Timoshenko beam problem 63 (1987) 133- 154
1144. Loula, A.F.D., L.P. Franca, T.J.R. Hughes and I. Miranda, Stability, convergence and accuracy of a new finite element method for the circular arch problem 63 (1987) 281- 303
1145. Loula, A.F.D., I. Miranda, T.J.R. Hughes and L.P. Franca, On mixed finite element methods for axisymmetric shell analysis 72 (1989) 201- 231
1146. Loula, A.F.D. and J.N.C. Guerreiro, Finite element analysis of nonlinear creeping flows 79 (1990) 87- 109
1147. Lu, Y.Y., T. Belytschko and W.K. Liu, A variationally coupled FE-BE method for elasticity and fracture mechanics 85 (1991) 21- 37
1148. Luehr, C.P. and M.B. Rubin, The significance of projection operators in the spectral representation of symmetric second order tensors 84 (1990) 243- 246
1149. Luo, J.-C. and M.B. Friedman, A parallel computational model for the finite element method on a memory-sharing multiprocessor computer 84 (1990) 193- 209

1150. Luo, S.J., Y.W. Zheng, H. Qian and D.Q. Wang, Finite difference computation for transonic steady potential flows 27 (1981) 129- 138
1151. Lyell, M.J. and K.D. Cronin, Extinction properties of a premixed laminar flame in oblique stagnation flow in the region of the stagnation point 95 (1992) 71- 86
1152. Machura, M., The design of an open-ended program package 27 (1981) 155- 166
1153. Maday, Y. and E.M. Rønquist, Optimal error analysis of spectral methods with emphasis on non-constant coefficients and deformed geometries 80 (1990) 91- 115
1154. Maewal, A., A finite element method for construction of dynamical theories of layered plates 42 (1984) 149- 165
1155. Maewal, A., An asymptotic method for construction of plate theories: Cylindrical bending of a homogeneous plate 43 (1984) 127- 136
1156. Maewal, A., Construction of models of dispersive elastodynamic behavior of periodic composites: A computational approach 57 (1986) 191- 205
1157. Maewal, A., Finite element analysis of steady nonlinear harmonic oscillations of axisymmetric shells 58 (1986) 37- 50
1158. Mahrenholtz, O., Different finite element approaches to large plastic deformations 33 (1982) 453- 468
1159. Maier, G., F. Andreuzzi, F. Giannessi, L. Jurina and F. Taddei, Unilateral contact, elastoplasticity and complementarity with reference to offshore pipeline design (Erratum, 22 (1980) 151) 17/18 (1979) 469- 495
1160. Maier, G., S. Giacomini and F. Paterlini, Combined elastoplastic and limit analysis via restricted basis linear programming 19 (1979) 21- 48
1161. Maier, G. and C. Polizzotto, A Galerkin approach to boundary element elastoplastic analysis 60 (1987) 175- 194
1162. Maier, G., M. Diligenti and A. Carini, A variational approach to boundary element elastodynamic analysis and extension to multidomain problems 92 (1991) 193- 213  
91 (1991) 1391-1396
1163. Maißer, P., Analytical dynamics of multibody systems 91 (1991) 1391-1396
1164. Malkus, D.S. and T.J.R. Hughes, Mixed finite element methods - reduced and selective integration techniques: a unification of concepts 15 (1978) 63- 81
1165. Malkus, D.S. and E.T. Olsen, Obtaining error estimates for optimally constrained incompressible finite elements 45 (1984) 331- 353
1166. Malkus, D.S. and M.E. Plesha, Zero and negative masses in finite element vibration and transient analysis 59 (1986) 281- 306
1167. Malkus, D.S. and X. Qiu, Division structure of finite element eigenproblems arising from negative and zero masses 66 (1988) 365- 368
1168. Malkus, D.S., M.E. Plesha and M.-R. Liu, Reversed stability conditions in transient finite element analysis 68 (1988) 97- 114
1169. Mallet, M., C. Poirier and F. Shakib, A new finite element formulation for computational fluid dynamics: Development of an hourglass control operator for multidimensional advective-diffusive systems 94 (1992) 429- 442
1170. Malone, J.G., Automated mesh decomposition and concurrent finite element analysis for hypercube multiprocessor computers 70 (1988) 27- 58
1171. Mandel, J., Iterative solvers by substructuring for the  $p$ -version finite element method 80 (1990) 117- 128

1172. Manolis, G.D. and D.E. Beskos, Thermally induced vibrations of beam structures 21 (1980) 337- 355
1173. Manolis, G.D. and D.E. Beskos, Dynamic response of lined tunnels by an isoparametric boundary element method 36 (1983) 291- 307
1174. Marcelin, J.L., M. Abouaf and J.L. Chenot, Analysis of residual stresses in hot-rolled complex beams 56 (1986) 1- 16
1175. Marciniak, A., Discrete Hill's equations 37 (1983) 15- 24
1176. Marciniak, A., Discrete mechanics of arbitrary order 39 (1983) 159- 178
1177. Marini, L.D. and P. Pietra, Fixed-point algorithms for stationary flow in porous media 56 (1986) 17- 45
1178. Markatos, N.C.G., Heat, mass and momentum transfer across a wavy boundary 14 (1978) 323- 376
1179. Markatos, N.C.G., D.B. Spalding, D.G. Tatchell and N. Vlachos, A solution method for three-dimensional turbulent boundary layers on bodies of arbitrary shapes 15 (1978) 161- 174
1180. Markatos, N.-C.G. and C.B. Wills, Prediction of viscous flow around a fully submerged appended body 29 (1981) 175- 199
1181. Marques, J.M.M.C. and D.R.J. Owen, Implicit-explicit time integration in quasistatic elastoviscoplasticity using finite and infinite elements 42 (1984) 167- 182
1182. Marrocco, A. and O. Pironneau, Optimum design with Lagrangian finite elements: design of an electromagnet 15 (1978) 277- 308
1183. Martins, J.A.C. and J.T. Oden, A numerical analysis of a class of problems in elastodynamics with friction 40 (1983) 327- 360
1184. Mastro, R.A. and D.A. Voss, A quintic spline collocation procedure for solving the Falkner-Skan boundary-layer equation 25 (1981) 129- 148
1185. Mastrojannis, E.N. and T.B. Kermanidis, A numerical solution of the annular stamp problem 35 (1982) 285- 292
1186. Mastrojannis, E.N., L.M. Keer and T. Mura, Numerical solution of a three-part mixed boundary value problem of linear elastostatics 39 (1983) 93- 101
1187. Masur, E.F., Optimal structural design for a discrete set of available structural members 3 (1974) 195- 207
1188. Masur, E.F., Some remarks on the optimal choice of finite element grids 14 (1978) 237- 248
1189. Matejovič, P. and V. Adamík, A one-point integration quadrilateral with hourglass control in axisymmetric geometry 70 (1988) 301- 320
1190. Matejovič, P. and V. Adamík, A diffusion equation with hourglass control in an axisymmetric geometry 76 (1989) 135- 156
1191. Matejovič, P., Quadrilateral with high coarse-mesh accuracy for solid mechanics in axisymmetric geometry 88 (1991) 241- 258
1192. Matsuno, K., Evolution of nonlinear dissipative systems with application to a macro-economic organism 13 (1978) 27- 43
1193. Matthies, H.G. and C. Nath, Dynamic stability of periodic solutions of large scale nonlinear systems 48 (1985) 191- 202
1194. McGuirk, J.J. and J.M.L.M. Palma, The influence of numerical parameters in the calculation of gas turbine combustor flows 96 (1992) 65- 92
1195. McKeown, J.J., A quasi-linear programming algorithm for optimising fibre-reinforced structures of fixed stiffness 6 (1975) 123- 154

1196. McKeown, J.J., Optimal composite structures by deflection-variable programming 12 (1977) 155- 179
1197. McNeill, N.J. and J.S. Hansen, An accuracy study for a class of rectangular isoparametric finite elements 25 (1981) 335- 341
1198. Meakin, R.L. and R.L. Street, Simulation of environmental flow problems in geometrically complex domains. Part 1: A general coordinate transformation 68 (1988) 151- 175
1199. Meakin, R.L. and R.L. Street, Simulation of environmental flow problems in geometrically complex domains. Part 2: A domain-splitting method 68 (1988) 311- 331
1200. Meek, J.L. and P.T.S. Ho, A simple finite element model for the warping torsion problem 37 (1983) 25- 36
1201. Meek, J.L. and H.S. Tan, A stiffness matrix extrapolation strategy for nonlinear analysis 43 (1984) 181- 194
1202. Meek, J.L. and H.S. Tan, Geometrically nonlinear analysis of space frames by an incremental iterative technique 47 (1984) 261- 282
1203. Meek, J.L. and H.S. Tan, Instability analysis of thin plates and arbitrary shells using a faceted shell element with Loof nodes 57 (1986) 143- 170
1204. Meek, J.L. and S. Loganathan, Large displacement analysis of space-frame structures 72 (1989) 57- 75
1205. Meek, P.C. and J. Norbury, A two-stage, two-level finite difference scheme for moving boundary problems 46 (1984) 137- 149
1206. Megahed, I.E.A. and S.E. Elghobashi, On the numerical solution of indeterminate steady elliptic flows 26 (1981) 225- 240
1207. Meissner, U., An explicit-implicit water-level model for tidal computations of rivers 13 (1978) 221- 232
1208. Meissner, U. and H. Wibbeler, A least square principle for the a posteriori computation of finite element approximation errors 85 (1991) 89- 108
1209. Mena, A.L. and T. Cebeci, Calculation of steady confined jets for two-dimensional plane laminar flows 35 (1982) 67- 86
1210. Mennig, J., T. Auerbach and W. Halg, Two point Hermite approximations for the solution of linear initial value and boundary value problems 39 (1983) 199- 224
1211. Mercader, I., M. Net and A. Falques, Spectral methods for high order equations 91 (1991) 1245-1251
1212. Merriam, M.L., Smoothing and the second law 64 (1987) 177- 193
1213. Mešina, M., Convergence acceleration for the iterative solution of the equations  $\dot{X} = AX + f$  10 (1977) 165- 173
1214. Militello, C. and C.A. Felippa, The first ANDES elements: 9-dof plate bending triangles 93 (1991) 217- 246
1215. Miner, E.W. and C.H. Lewis, Numerical studies of supersonic turbulent boundary-layer flows with tangential slot injection 4 (1974) 19- 38
1216. Mita, A. and J.E. Luco, Dynamic response of embedded foundations: A hybrid approach 63 (1987) 233- 259
1217. Mitra, A.K. and S. Das, Nonuniqueness in the integral equation formulation of the biharmonic equation in multiply connected domains 69 (1988) 205- 214
1218. Mizukami, A., An implementation of the streamline-upwind/Petrov-Galerkin method for linear triangular elements 49 (1985) 357- 364

1219. Mizukami, A. and T.J.R. Hughes, A Petrov-Galerkin finite element method for convection-dominated flows: an accurate upwinding technique for satisfying the maximum principle 50 (1985) 181- 193
1220. Mizukami, A., A mixed finite element method for boundary flux computation 57 (1986) 239- 243
1221. Mizukami, A., Variable explicit finite element methods for unsteady heat conduction equations 59 (1986) 101- 109
1222. Mizukami, A., Some integration formulas for a four-node isoparametric element 59 (1986) 111- 121
1223. Moan, T., A note on the convergence of finite element approximations for problems formulated in curvilinear coordinate systems 3 (1974) 209- 235
1224. Modarress, D., Application of the method of integral relations to boundary layer flows over blunt bodies 14 (1978) 145- 157
1225. Mogilestue, C., Monte Carlo particle modelling of small semiconductor devices 30 (1982) 173- 208
1226. Moin, P., Towards large eddy and direct simulation of complex turbulent flows 87 (1991) 329- 334
1227. Molina, R.-C. and J.-P. Huot, A one-point integration finite element solver for the fast solution of the compressible Euler equations 95 (1992) 37- 48
1228. Mollestad, E. and P.G. Bergan, Nonlinear dynamic analysis of submerged pipelines 34 (1982) 881- 892
1229. Morgan, K., T.G. Hughes and C. Taylor, The analysis of turbulent, free-shear, and channel flows by the finite element method 19 (1979) 117- 125
1230. Morgan, K., A numerical analysis of freezing and melting with convection 28 (1981) 275- 284
1231. Morgan, K., J. Peraire, J. Peiro and O. Hassan, The computation of three-dimensional flows using unstructured grids 87 (1991) 335- 352
1232. Morley, L.S.D., Study of trial functions in shell triangular finite elements of quadratic parametric representation 38 (1983) 203- 236
1233. Morris, A.J., On condensed geometric programming in structural optimisation 15 (1978) 139- 148
1234. Morton, K.W., Generalised Galerkin methods for hyperbolic problems 52 (1985) 847- 871
1235. Moss, W.C., On instabilities in large deformation simple shear loading 46 (1984) 329- 338
1236. Mottl, J., Excavator optimization using the 'voting method' 98 (1992) 227- 250
1237. Mukherjee, A. and M. Mukhopadhyay, Response of stiffened plated structures under stochastic excitation 71 (1988) 273- 292
1238. Müller, C.H. and U. Heise, Numerical calculation of eigenvalues of integral operators for plane elastostatic boundary value problems 21 (1980) 17- 43
1239. Muñoz, R., Theoretical analysis of some spectral multigrid methods 80 (1990) 287- 294
1240. Murad, M.A. and A.F.D. Loula, Improved accuracy in finite element analysis of Biot's consolidation problem 95 (1992) 359- 382
1241. Murray, D.W., L. Chitnuyanondh and C. Wong, Implementation of an elastic-plastic concrete relationship 23 (1980) 35- 57
1242. Murthy, S.S. and R.H. Gallagher, A triangular thin-shell finite element based on discrete Kirchhoff theory 54 (1986) 197- 222
1243. Nacar, A., A. Needleman and M. Ortiz, A finite element method for analyzing localization in rate dependent solids at finite strains 73 (1989) 235- 258



1244. Naganarayana, B.P., G. Prathap, B. Dattaguru and T.S. Ramamurty, A field-consistent and variationally correct representation of transverse shear strains in the nine-noded plate element 97 (1992) 355- 374
1245. Nagtegaal, J.C., A new approach to optimal design of elastic structures 2 (1973) 255- 264
1246. Nagtegaal, J.C., D.M. Parks and J.R. Rice, On numerically accurate finite element solutions in the fully plastic range 4 (1974) 153- 177
1247. Nagtegaal, J.C., On the implementation of inelastic constitutive equations with special reference to large deformation problems 33 (1982) 469- 484
1248. Nagy, D. and M. König, Geometrically nonlinear finite element behaviour using buckling mode superposition 19 (1979) 447- 484
1249. Nakamura, S. and R.S. Lakes, Finite element analysis of stress concentration around a blunt crack in a Cosserat elastic solid 66 (1988) 257- 266
1250. Nakamura, T. and M. Ohsaki, Sequential optimal truss generator for frequency ranges 67 (1988) 189- 209
1251. Nakamura, T. and M. Ohsaki, A natural generator of optimum topology of plane trusses for specified fundamental frequency 94 (1992) 113- 129
1252. Nakamura, T., M. Ohsaki and T. Masui, Inverse generation of earthquake-strain constrained designs of a distributed parameter structure for a sequence of design strain functions 98 (1992) 1- 21
1253. Napolitano, L.G. and V. Losito, The closed spline functions 13 (1978) 335- 350
1254. Narayana Dutt, D. and B.S. Ramakrishna, Nonlinear programming solutions for controlling the vibration pattern of stretched strings 13 (1978) 351- 361
1255. Navarrina, F., E. Bendito and M. Casteleiro, High order sensitivity analysis in shape optimization problems 75 (1989) 267- 281
1256. Nedelec, J.C., Curved finite element methods for the solution of singular integral equations on surfaces in  $R^3$  8 (1976) 61- 80
1257. Nee, K.-M. and A. Haldar, Elastoplastic nonlinear post-buckling analysis of partially restrained space structures 71 (1988) 69- 97
1258. Needleman, A. and C.F. Shih, A finite element method for plane strain deformations of incompressible solids 15 (1978) 223- 240
1259. Needleman, A., R.J. Asaro, J. LeMonds and D. Peirce, Finite element analysis of crystalline solids 52 (1985) 689- 708
1260. Needleman, A., Material rate dependence and mesh sensitivity in localization problems 67 (1988) 69- 85
1261. Neishlos, H., M. Israeli and Y. Kivity, The stability of explicit difference schemes for solving the problem of interaction between a compressible fluid and an elastic shell 41 (1983) 129- 143
1262. Nemat-Nasser, S. and K.N. Lee, Application of general variational methods with discontinuous fields to bending, buckling, and vibration of beams 2 (1973) 33- 41
1263. Nemat-Nasser, S. and D.-T. Chung, An explicit constitutive algorithm for large-strain, large-strain-rate elastic-viscoplasticity 95 (1992) 205- 219
1264. Ng, S.S. and M.Y.T. Chan, Solution of some boundary value problems in applied mechanics by the collocation least square method 11 (1977) 137- 150
1265. Nguyen Dang Hung, Direct limit analysis via rigid-plastic finite elements 8 (1976) 81- 116
1266. Nguyen Dang Hung and J.A. König, A finite element formulation for shakedown problems using a yield criterion of the mean 8 (1976) 179- 192



1267. Nguyen Hung, Numerical analysis of unsteady compressible laminar boundary layer flow 19 (1979) 187- 204
1268. Nguyen, H. and J. Reynen, A space-time least-square finite element scheme for advection-diffusion equations 42 (1984) 331- 342
1269. Nickell, R.E., Nonlinear dynamics by mode superposition 7 (1976) 107- 129
1270. Nickell, R.E., D.K. Gartling and G. Strang, Spectral decomposition in advection-diffusion analysis by finite element methods 17/18 (1979) 561- 580
1271. Niethammer, W. and U. Schweitzer, On the numerical analytic continuation of power series with application to the two-body and three-body problems 5 (1975) 239- 249
1272. Nilson, R.H. and Y.G. Tsuei, Free boundary problem of ECM by alternating-field technique on inverted plane 6 (1975) 265- 282
1273. Nilson, R.H. and S.K. Griffiths, Numerical analysis of hydraulically-driven fractures 36 (1983) 359- 370
1274. Nomura, T. and T.J.R. Hughes, An arbitrary Lagrangian-Eulerian finite element method for interaction of fluid and a rigid body 95 (1992) 115- 138
1275. Noor, A.K. and P.L. Rarig, Three-dimensional solutions of laminated cylinders 3 (1974) 319- 334
1276. Noor, A.K. and C.M. Andersen, Mixed isoparametric elements for Saint-Venant torsion 6 (1975) 195- 218
1277. Noor, A.K. and R.A. Camin, Symmetry considerations for anisotropic shells 9 (1976) 317- 335
1278. Noor, A.K. and C.M. Andersen, Mixed isoparametric finite element models of laminated composite shells 11 (1977) 255- 280
1279. Noor, A.K., W.H. Greene and S.J. Hartley, Nonlinear finite element analysis of curved beams 12 (1979) 289- 307
1280. Noor, A.K. and C.M. Andersen, Analysis of beam-like lattice trusses 20 (1979) 53- 70
1281. Noor, A.K. and J.M. Peters, Nonlinear dynamic analysis of space trusses 21 (1980) 131- 151
1282. Noor, A.K. and M.P. Nemeth, Micropolar beam models for lattice grids with rigid joints 21 (1980) 249- 263
1283. Noor, A.K. and N.F. Knight, Jr., Nonlinear dynamic analysis of curved beams 23 (1980) 225- 251
1284. Noor, A.K. and M.P. Nemeth, Analysis of spatial beamlike lattices with rigid joints 24 (1980) 35- 59
1285. Noor, A.K. and L.S. Weisstein, Stability of beamlike lattice trusses 25 (1981) 179- 193
1286. Noor, A.K. and J.M. Peters, Tracing post-limit-point paths with reduced basis technique 28 (1981) 217- 240
1287. Noor, A.K. and J.M. Peters, Bifurcation and post-buckling analysis of laminated composite plates via reduced basis technique 29 (1981) 271- 295
1288. Noor, A.K., On making large nonlinear problems small 34 (1982) 955- 985
1289. Noor, A.K. and J.M. Peters, Instability analysis of space trusses 40 (1983) 199- 218
1290. Noor, A., J.M. Peters and C.M. Andersen, Mixed models and reduction techniques for large-rotation nonlinear problems 44 (1984) 67- 89
1291. Noor, A.K. and W.C. Russell, Anisotropic continuum models for beamlike lattice trusses 57 (1986) 257- 277
1292. Noor, A.K. and J.M. Peters, Vibration analysis of laminated anisotropic shells of revolution 61 (1987) 277- 301

1293. Noor, A.K., C.M. Andersen and J.A. Tanner, Exploiting symmetries in the modeling and analysis of tires 63 (1987) 37- 81
1294. Noor, A.K. and J.M. Peters, A computational strategy for making complicated structural problems simple 71 (1988) 167- 182
1295. Noor, A.K., W.C. Burton and J.M. Peters, Predictor-corrector procedures for stress and free vibration analyses of multilayered composite plates and shells 82 (1990) 341- 363
1296. Nouh, A. and N. Ula, A search algorithm for the minimum cost covering of 0-1 integer sets 36 (1983) 147- 154
1297. Nouh, A., A sequential aggregation algorithm for the set partitioning problem 63 (1987) 225- 232
1298. Nour-Omid, B. and P. Wriggers, A two-level iteration method for solution of contact problems 54 (1986) 131- 144
1299. Nour-Omid, B. and K.C. Park, Solving structural mechanics problems on the CalTech Hypercube machine 61 (1987) 161- 176
1300. Nour-Ohmid, B., W.S. Dunbar and A.D. Woodbury, Lanczos and Arnoldi methods for the solution of convection-diffusion equations 88 (1991) 75- 95
1301. Nour-Omid, B. and C.C. Rankin, Finite rotation analysis and consistent linearization using projectors 93 (1991) 353- 384
1302. Nyssen, C. and P. Beckers, A unified approach for displacement, equilibrium and hybrid finite element models in elasto-plasticity 44 (1984) 131- 151
1303. Oden, J.T., Recent developments in the theory of finite element approximations of boundary value problems in nonlinear elasticity 17/18 (1979) 183- 202
1304. Oden, J.T., N. Kikuchi and Y.J. Song, Penalty-finite element methods for the analysis of Stokesian flows 31 (1982) 297- 329
1305. Oden, J.T. and O.-P. Jacquotte, Stability of some mixed finite element methods for Stokesian flows 43 (1984) 231- 247
1306. Oden, J.T. and J.A.C. Martins, Models and computational methods for dynamic friction phenomena 52 (1985) 527- 634
1307. Oden, J.T. and T.L. Lin, On the general rolling contact problem for finite deformations of a viscoelastic cylinder 57 (1986) 297- 367
1308. Oden, J.T., T. Strouboulis and P. Devloo, Adaptive finite element methods for the analysis of inviscid compressible flow: Part I. Fast refinement/unrefinement and moving mesh methods for unstructured meshes 59 (1986) 327- 362
1309. Oden, J.T., L. Demkowicz, W. Rachowicz and T.A. Westermann, Toward a universal  $h$ - $p$  adaptive finite element strategy, Part 2. A posteriori error estimation 77 (1989) 113- 180
1310. Oden, J.T., L. Demkowicz, W. Rachowicz and T.A. Westermann, A posteriori error analysis in finite elements: The element residual method for symmetrizable problems with applications to compressible Euler and Navier-Stokes equations 82 (1990) 183- 203
1311. Oden, J.T. and L. Demkowicz,  $h$ - $p$  adaptive finite element methods in computational fluid dynamics 89 (1991) 11- 40
1312. Oh, H.-S. and I. Babuška, The  $p$ -version of the finite element method for the elliptic boundary value problems with interfaces 97 (1992) 211- 231

1313. Ohring, S. and J. Telste, The direct matrix imbedding technique for computing three-dimensional potential flow about arbitrarily shaped bodies 21 (1980) 315- 336
1314. Ohtake, K., J.T. Oden and N. Kikuchi, Analysis of certain unilateral problems in von Karman plate theory by a penalty method - Part 1. A variational principle with penalty 24 (1980) 187- 213
1315. Ohtake, K., J.T. Oden and N. Kikuchi, Analysis of certain unilateral problems in von Karman plate theory by a penalty method - Part 2. Approximation and numerical analysis 24 (1980) 317- 337
1316. Okabe, M., Y. Yamada and I. Nishiguchi, Basis transformation of trial function space in Lagrange interpolation 23 (1980) 85- 99
1317. Okabe, M., Y. Yamada and I. Nishiguchi, Reconsideration of rectangular Lagrange families with hierarchy-ranking bases 23 (1980) 369- 390
1328. Okabe, M., Singularity and positioning constants in Poisson's equation with a point source of unit intensity 25 (1981) 287- 297
1329. Okabe, M., Fundamental theory of the semi-radial singularity mapping with applications to fracture mechanics 26 (1981) 53- 73
1320. Okabe, M. and N. Kikuchi, Some general Lagrange interpolations over simplex finite elements with reference to derivative singularities 28 (1981) 1- 25
1321. Okabe, M., Complete Lagrange family for the cube in finite element interpolations 29 (1981) 51- 66
1322. Okabe, M., Analytical integral formulae related to convex quadrilateral finite elements 29 (1981) 201- 218
1323. Okabe, M., A boundary integral approach in the geoelectrical cavity prospecting 29 (1981) 297- 311
1324. Okabe, M. and N. Kikuchi, Analytical solutions of some steady-state electrical problems in the rectangular domain 36 (1983) 167- 189
1325. Okabe, M. and N. Kikuchi, Semi-radial singularity mapping theory for line singularities in fracture mechanics 36 (1983) 257- 276
1326. Okabe, M., Modified gradient method in the nonlinear least-square estimation 37 (1983) 151- 176
1327. Okabe, M., Generalized Lagrange family for the cube with special reference to infinite-domain interpolations 38 (1983) 153- 168
1338. Okabe, M. and N. Kikuchi, Analytical solutions for the incompressible viscous flow within a rectangular domain 40 (1983) 219- 240
1339. Okabe, M., Gauss-Jacobi quadrature rules for  $n$ -simplex with applications to finite element methods 40 (1983) 293- 307
1330. Okabe, M., One-dimensional self-adaptive interpolations in the  $p$ -convergence procedure 41 (1983) 69- 89
1331. O'Leary, D.P. and W.H. Yang, Elastoplastic torsion by quadratic programming 16 (1978) 361- 368
1332. Olhoff, N., M.P. Bendsøe and J. Rasmussen, On CAD-integrated structural topology and design optimization 89 (1991) 259- 279
1333. Oliveira de, P., On the optimal design of a plate submitted to a rupture criterion 29 (1981) 67- 79
1334. Ondris, Ľ., Solution of some symmetrical plane thermal problems by the boundary point least squares method 28 (1981) 309- 325

1335. Ondris, Ľ., Remarks concerning the solution of stationary plane thermal problems by the boundary point least squares method 31 (1982) 331- 336
1336. Ong, T.-G., G.I.N. Rozvany and W.-T. Szeto, Least-weight design of perforated elastic plates for given compliance: Nonzero Poisson's ratio 66 (1988) 301- 322
1337. Oral, S. and A. Barut, A shear-flexible facet shell element for large deflection and instability analysis 93 (1991) 415- 431
1338. Orbison, J.G., W. McGuire and J.F. Abel, Yield surface applications in nonlinear steel frame analysis 33 (1982) 557- 573
1339. Orlov, I.V. and V.L. Yumashev, A software system for standard presentation of flow fields in computational fluid dynamics 91 (1991) 1379-1389
1340. Ortiz, M., P.M. Pinsky and R.L. Taylor, Unconditionally stable element-by-element algorithms for dynamic problems 36 (1983) 223- 239
1341. Ortiz, M., P.M. Pinsky and R.L. Taylor, Operator split methods for the numerical solution of the elastoplastic dynamic problem 39 (1983) 137- 157
1342. Ortiz, M. and B. Nour-Omid, Unconditionally stable concurrent procedures for transient finite element analysis 58 (1986) 151- 174
1343. Ortiz, M., Y. Leroy and A. Needleman, A finite element method for localized failure analysis 61 (1987) 189- 214
1344. Ortiz, M. and J.J. Quigley, IV, Adaptive mesh refinement in strain localization problems 90 (1991) 781- 804
1345. Osiadacz, A.J. and K. Rudowski, Analysis of loop methods for simulating gas networks 65 (1987) 201- 213
1346. Osmont, D., Computation of the dynamic response of structures with unilateral constraints (contact) - comparison with experimental results 34 (1982) 847- 859
1347. Osyczka, A., An approach to multicriterion optimization problems for engineering design 15 (1978) 309- 333
1348. Owen, D.J.R., J.A. Figueiras and F. Damjanic, Finite element analysis of reinforced and prestressed concrete structures including thermal loading 41 (1983) 323- 366
1349. Owen, D.R.J. and Z.H. Li, Elastic-plastic dynamic analysis of anisotropic laminated plates 70 (1988) 349- 365
1350. Öz, H. and A. Raffie, Inverse response problem (control) of dynamic systems via Hamilton's law 62 (1987) 17- 26
1351. Padovan, J., Y.H. Guo and G. Ryland, Static response of sparsely probabilistic systems 79 (1990) 113- 127
1352. Palmerio, F., A two-dimensional FEM adaptive moving-node method for steady Euler flow simulations 71 (1988) 315- 340
1353. Pan, N.-Q., W.-F. Wang, S.-J. Xu and Z.-X. Huang, Finite difference computation of the aerodynamic interference of wing-pylon-store combinations at transonic speeds 37 (1983) 1- 13
1354. Panagiotopoulos, P.D., E.S. Mistakidis and O.K. Panagouli, Fractal interfaces with unilateral contact and friction conditions 99 (1992) 395- 412
1355. Pandolfini, P.P. and R.H. Page, Resonance in a piston-driven cavity 3 (1974) 29- 36
1356. Pandya, B.N. and T. Kant, Flexural analysis of laminated composites using refined higher-order  $C^0$  plate bending elements 66 (1988) 173- 198
1357. Pao, Y.C. and M.N. Maheshwari, Evaluation of elastic moduli of composite materials by linear programming 3 (1974) 305- 318

1358. Papadopoulos, P. and R.L. Taylor, A mixed formulation for the finite element solution of contact problems 94 (1992) 373- 389
1359. Papadrakakis, M., A method for the automatic evaluation of the dynamic relaxation parameters 25 (1981) 35- 48
1360. Papadrakakis, M. and P. Ghionis, Conjugate gradient algorithms in nonlinear structural analysis problems 59 (1986) 11- 27
1361. Papadrakakis, M. and M. Yakoumidakis, A partial preconditioned conjugate gradient method for large eigenproblems 62 (1987) 195- 207
1362. Papadrakakis, M. and A.P. Theoharis, Tracing post-limit-point paths with incomplete or without factorization of the stiffness matrix (see also 92 (1991) 399-400) 88 (1991) 165- 187
1363. Papadrakakis, M. and M.C. Dracopoulos, A global preconditioner for the element-by-element solution methods 88 (1991) 275- 286
1364. Papamichael, N. and G.T. Symm, Numerical techniques for two-dimensional Laplacian problems 6 (1975) 175- 194
1365. Papamichael, N. and C.A. Kokkinos, Two numerical methods for the conformal mapping of simply-connected domains 28 (1981) 285- 307
1366. Papamichael, N. and C.A. Kokkinos, Numerical conformal mapping of exterior domains 31 (1982) 189- 203
1367. Parisch, H., Geometrical nonlinear analysis of shells 14 (1978) 159- 178
1368. Parisch, H., A critical survey of the 9-node degenerated shell element with special emphasis on thin shell application and reduced integration 20 (1979) 323- 350
1369. Parisch, H., Large displacements of shells including material nonlinearities 27 (1981) 183- 214
1370. Park, K.C. and P.G. Underwood, A variable-step central difference method for structural dynamics analysis - Part 2. Implementation and performance evaluation 23 (1980) 259- 279
1371. Park, K.C. and D.L. Flaggs, An operational procedure for the symbolic analysis of the finite element method 42 (1984) 37- 46
1372. Park, K.C. and D.L. Flaggs, A Fourier analysis of spurious mechanisms and locking in the finite element method 46 (1984) 65- 81
1373. Park, K.C., Locking, spurious mechanisms, and pressure divergence in penalty finite element methods for Stokes flow problems 47 (1984) 315- 330
1374. Park, K.C. and D.L. Flaggs, A symbolic Fourier synthesis of a one-point integrated quadrilateral plate element 48 (1985) 203- 236
1375. Parks, D.M., The virtual crack extension method for nonlinear material behavior 12 (1977) 353- 364
1376. Patankar, S.V., D. Rafiinejad and D.B. Spalding, Calculation of the three-dimensional boundary layer with solution of all three momentum equations 6 (1975) 283- 292
1377. Patnaik, S.N., Synthesis of waffle plates in the post buckled domain 4 (1974) 47- 68
1378. Patnaik, S.N. and M. Maiti, Optimum design of stiffened structures with constraint on the frequency in the presence of initial stresses 7 (1976) 303- 322
1379. Patnaik, S.N. and N.K. Srivastava, On automated optimum design of trusses 9 (1976) 245- 265
1380. Patnaik, S.N. and S. Yadagiri, Design for frequency by the integrated force method 16 (1978) 213- 230



1381. Patnaik, S.N. and K.T. Joseph, Generation of the compatibility matrix in the integrated force method 55 (1986) 239- 257
1382. Paumier, J.C., Stable solutions to a shell problem 20 (1979) 91- 103
1383. Peano, A.G., B.A. Szabo and A.K. Mehta, Self-adaptive finite elements in fracture mechanics 16 (1978) 69- 80
1384. Peirce, A. and J.H. Prevost, On the lack of convergence of unconditionally stable explicit rational Runge-Kutta schemes 57 (1986) 171- 180
1385. Pelletier, D., A. Garon and R. Camarero, A new finite element method for computing the flow inside rotating machinery 75 (1989) 343- 358
1386. Pelz, R.B., Pseudospectral methods on massively parallel computers 80 (1990) 493- 503
1387. Pelz, R.B., Fourier spectral method on ensemble architectures 89 (1991) 529- 542
1388. Perdon, A.M. and G. Gambolati, Extreme eigenvalues of large sparse matrices by Rayleigh quotient and modified conjugate gradients 56 (1986) 251- 264
1389. Perić, D., D.R.J. Owen and M.E. Honnor, A model for finite strain elasto-plasticity based on logarithmic strains: Computational issues 94 (1992) 35- 61
1390. Peshkam, V. and D.J. Dawe, Buckling and vibration of finite-length composite prismatic plate structures with diaphragm ends, Part II: Computer programs and buckling applications 77 (1989) 227- 252
1391. Peterson, A. and H. Petersson, On finite element analysis of geometrically nonlinear problems 51 (1985) 277- 286
1392. Petrolito, J., Hybrid-Trefftz quadrilateral elements for thick plate analysis 78 (1990) 331- 351
1393. Pettersen, Ø., Simulation of two-phase flow in porous rocks on a laboratory scale: Diffusion operator splitting and consistency 65 (1987) 229- 252
1394. Petzold, L.R., Recent developments in the numerical solution of differential/algebraic systems 75 (1989) 77- 89
1395. Peyret, R., The Chebyshev multidomain approach to stiff problems in fluid mechanics 80 (1990) 129- 145
1396. Pfaffinger, D.D., Analytical evaluation of modal covariance matrices 24 (1980) 269- 286
1397. Phelan, D.G. and R.B. Haber, Sensitivity analysis of linear elastic systems using domain parameterization and a mixed mutual energy principle 77 (1989) 31- 59
1398. Phillips, T.N., Spectral domain decomposition techniques for viscous incompressible flows 80 (1990) 389- 395
1399. Pierre, R., Simple  $C^0$  approximations for the computation of incompressible flows 68 (1988) 205- 227
1400. Pierson, B.L. and L.J. Genalo, Minimum weight design of a rectangular panel subject to a flutter speed constraint 10 (1977) 45- 62
1401. Pierson, B.L., An optimal control approach to the design of vibrating elastic-viscoelastic sandwich beams 57 (1986) 37- 49
1402. Pijaudier-Cabot, G. and A. Huerta, Finite element analysis of bifurcation in nonlocal strain softening solids 90 (1991) 905- 919
1403. Pilitsis, S. and A.N. Beris, Pseudospectral calculations of viscoelastic flow in a periodically constricted tube 98 (1992) 307- 328
1404. Pinebrook, W.E. and C. Dalton, Drag minimization on a body of revolution through evolution 39 (1983) 179- 197
1405. Pinsky, P.M., M. Ortiz and K.S. Pister, Numerical integration of rate constitutive equations in finite deformation analysis 40 (1983) 137- 158



1406. Pinsky, P.M., A finite element formulation for elastoplasticity based on a three-field variational equation 61 (1987) 41- 60
1407. Pinsky, P.M. and R.V. Jasti, On the use of Lagrange multiplier compatible modes for controlling accuracy and stability of mixed shell finite elements 85 (1991) 151- 182
1408. Pinsky, P.M. and N.N. Abboud, Finite element solution of the transient exterior structural acoustics problem based on the use of radially asymptotic boundary operators 85 (1991) 311- 348
1409. Pires, E.B. and J.T. Oden, Analysis of contact problems with friction under oscillating loads 39 (1983) 337- 362
1410. Pironneau, O., J. Liou and T. Tezduyar, Characteristic-Galerkin and Galerkin/least-squares space-time formulations for the advection-diffusion equation with time-dependent domains 100 (1992) 117- 141
1411. Planchard, J., Computation of the acoustic eigenfrequencies of cavities containing a tube bundle (see also 29 (1981) 365-366) 24 (1980) 125- 135
1412. Planchard, J., Eigenfrequencies of a tube bundle placed in a confined fluid 30 (1982) 75- 93
1413. Planchard, J. and M. Ibnou Zahir, Natural frequencies of tube bundle in an incompressible fluid 41 (1983) 47- 68
1414. Plank, L., E. Stein and D. Bischoff, Accuracy and adaptivity in the numerical analysis of thin-walled structures 82 (1990) 223- 256
1415. Polizzotto, C., C. Mazzarella and T. Panzeca, Optimum design for work-hardening adaptation 12 (1977) 129- 144
1416. Polizzotto, C., A formulation of the force method in the range of large displacements 16 (1978) 121- 134
1417. Polizzotto, C., An energy approach to the boundary element method. Part I: Elastic solids 69 (1988) 167- 184
1418. Polizzotto, C., An energy approach to the boundary element method. Part II: Elastic-plastic solids (see also 71 (1988) 235) 69 (1988) 263- 276
1419. Pollard, A. and D.B. Spalding, The prediction of the three-dimensional turbulent flow field in a flow-splitting Tee-junction 13 (1978) 293- 306
1420. Pollard, A. and A. Thyagaraja, A new method for handling flow problems with body forces 19 (1979) 107- 116
1421. Pollard, A. and A.L.-W. Siu, The calculation of some laminar flows using various discretisation schemes 35 (1982) 293- 313
1422. Porsching, T.A. and V.J. Esposito, Comment on: A finite difference scheme for the incompressible advection-diffusion equation (by D.G. Briggs 6 (1975) 233-241) 8 (1976) 357- 358
1423. Pos, J.D., Wave diffraction using finite and infinite elements 41 (1983) 219- 235
1424. Postell, F.V. and E.P. Stephan, On the  $h$ -,  $p$ - and  $h$ - $p$  versions of the boundary element method - Numerical results 83 (1990) 69- 89
1425. Potempa, T., A lumped finite element method for cap rock heat loss calculations 47 (1984) 177- 186
1426. Prager, W., A note on discretized Michell structures 3 (1974) 349- 355
1427. Prager, W., A note on the optimal choice of finite element grids (see also 8 (1976) 361-362) 6 (1975) 363- 366
1428. Prasad, B., An improved variable penalty algorithm for automated structural design 30 (1982) 245- 261

1429. Prasad, B., Explicit constraint approximation forms in structural optimization. Part 1: Analyses and projections 40 (1983) 1- 26
1430. Prasad, B., Explicit constraint approximation forms in structural optimization. Part 2: Numerical experiences 46 (1984) 15- 38
1431. Prevost, J.H., Nonlinear transient phenomena in saturated porous media 30 (1982) 3- 18
1432. Prevost, J.H., Implicit-explicit schemes for nonlinear consolidation 39 (1983) 225- 239
1433. Prevost, J.H. and B. Loret, Dynamic strain localization in elasto-(visco-)plastic solids, Part 2. Plane strain examples 83 (1990) 275- 294
1434. Providakis, C.P. and D.E. Beskos, Free and forced vibrations of plates by boundary elements 74 (1989) 231- 250
1435. Providakis, C.P. and D.E. Beskos, Free and forced vibrations of shallow shells by boundary and interior elements 92 (1991) 55- 74
1436. Pruett, C.D., A fast algorithm for simulation of a spatially-evolving, two-dimensional planar mixing layer 76 (1989) 275- 298
1437. Punch, E.F. and S.N. Atluri, Development and testing of stable, invariant, isoparametric curvilinear 2- and 3-D hybrid-stress elements 47 (1984) 331- 356
1438. Putcha, N.S. and J.N. Reddy, A mixed shear flexible finite element for the analysis of laminated plates 44 (1984) 213- 227
1439. Qian, L.x., W. Zhong, Y. Sui and J. Zhang, Efficient optimum design of structures - Program DDDU 30 (1982) 209- 224
1440. Qiu, X., M.E. Plesha and D.W. Meyer, Stiffness matrix integration rules for contact-friction using finite elements 93 (1991) 385- 399
1441. Quarteroni, A., On mixed methods for fourth-order problems 24 (1980) 13- 34
1442. Quarteroni, A., Mixed approximations of evolution problems 24 (1980) 137- 163
1443. Quick, R.M., M.C. Steenkamp and H.G. Miller, Relaxation techniques in the iterative '2 x 2' algorithm 48 (1985) 301- 311
1444. Rachowicz, W., J.T. Oden and L. Demkowicz, Toward a universal *h-p* adaptive finite element strategy, Part 3. Design of *h-p* meshes 77 (1989) 181- 212
1445. Radok, R. and P.S. Chan, A linearizing algorithm for nonlinear differential equations 54 (1986) 245- 253
1446. Radwańska, M. and Z. Waszczyszyn, Numerical analysis of nonsymmetric postbuckling behaviour of elastic annular plates 23 (1980) 341- 353
1447. Raggett, G.F., J.A.R. Stone and P.D. Wilson, On the use of cubic splines to solve certain circular plate problems 4 (1974) 39- 45
1448. Raggett, G.F., J.A.R. Stone and S.J. Wisner, The cubic spline solution of practical problems modelled by hyperbolic partial differential equations 8 (1976) 139- 151
1449. Raggett, G.F., An efficient gradient technique for the solution of optimal control problems 12 (1977) 315- 322
1450. Raithby, G.D., A critical evaluation of upstream differencing applied to problems involving fluid flow 9 (1976) 75- 103
1451. Raithby, G.D., Skew upstream differencing schemes for problems involving fluid flow 9 (1976) 153- 164
1452. Rajagopalan, K., Comment on: A note on the optimal choice of finite element grids (by W. Prager 6 (1975) 363-366) 8 (1976) 361- 362

1453. Rajagopalan, K., Optimization of prestressed concrete solid and voided slabs 20 (1979) 71- 89
1454. Rajpal, S.D.O., W.L. Cleghorn and B. Tabarrok, Improving the performance of beam elements undergoing forced vibrations 62 (1987) 245- 253
1455. Raju, P.C. and G. Venkateswara Rao, Post-buckling analysis of tapered cantilever columns 15 (1978) 201- 206
1456. Rakowski, J., A new methodology of evaluation of  $C^0$  bending finite elements 91 (1991) 1327-1338
1457. Raman, V.M., Numerical prediction of a laminar boundary layer flow on a rotating sphere 43 (1984) 37- 44
1458. Ramesh, A.V., S. Utku and B.K. Wada, Real-time control of geometry and stiffness in adaptive structures 90 (1991) 761- 779
1459. Ramos, J.I., Modified equation techniques for reactive-diffusive systems. Part 1: Explicit, implicit and quasilinear methods 64 (1987) 195- 219
1460. Ramos, J.I., Modified equation techniques for reactive-diffusive systems. Part 2: Time linearization and operator-splitting methods 64 (1987) 221- 236
1461. Ramos, J.I., Adaptive and nonadaptive Hermitian operator methods for combustion phenomena 90 (1991) 609- 630
1462. Ranaweera, M.P. and F.A. Leckie, The use of optimization techniques in the analysis of cracked members by the finite element displacement and stress methods 19 (1979) 367- 389
1463. Ranganath, S. and R.J. Clifton, A second-order accurate difference method for systems of hyperbolic partial differential equations 1 (1972) 173- 188
1464. Rank, E. and H. Werner, A graph-theoretical approach to a plotter pen touring problem 30 (1982) 95- 102
1465. Rao, K.P., A rectangular laminated anisotropic shallow thin shell finite element 15 (1978) 13- 33
1466. Rashid, M.M. and S. Nemat-Nasser, A constitutive algorithm for rate-dependent crystal plasticity 94 (1992) 201- 228
1467. Ravier, P. and J.-P. Penicaud, Etude en éléments finis de faisceaux de particules chargées 75 (1989) 531- 542
1468. Ray, D., K.S. Pister and E. Polak, Sensitivity analysis for hysteretic dynamic systems: theory and applications 14 (1978) 179- 208
1469. Reddy, B.D. and G.P. Mitchell, The analysis of elastic-plastic plates: a quadratic programming problem and its solution by finite elements 41 (1983) 237- 248
1470. Reddy, B.D. and J.B. Martin, Algorithms for the solution of internal variable problems in plasticity 93 (1991) 253- 273
1471. Reddy, B.D. and M.B. Volpi, Mixed finite element methods for the circular arch problem 97 (1992) 125- 145
1472. Reddy, J.N., Finite element analysis of the initial stages of hypervelocity impact 9 (1976) 47- 63
1473. Reddy, J.N., Penalty-finite-element analysis of 3-D Navier-Stokes equations 35 (1982) 87- 106
1474. Reddy, M.P., J.N. Reddy and H.U. Akay, Penalty finite element analysis of incompressible flows using element by element solution algorithms 100 (1992) 169- 205
1475. Reddy, S.C. and L.N. Trefethen, Lax-stability of fully discrete spectral methods via stability regions and pseudo-eigenvalues 80 (1990) 147- 164

1476. Reed, K.W. and S.N. Atluri, Analyses of large quasistatic deformations of inelastic bodies by a new hybrid-stress finite element algorithm 39 (1983) 245- 295
1477. Reed, K.W. and S.N. Atluri, Analyses of large quasistatic deformations of inelastic bodies by a new hybrid-stress finite element algorithm: applications 40 (1983) 171- 198
1478. Rehak, M.L., F.L. Dimaggio, H. Benaroya and I. Elishakoff, Random vibrations with MACSYMA 61 (1987) 61- 70
1479. Reichel, L., On the numerical solution of some 2-D electromagnetic interface problems by the boundary collocation method 53 (1985) 1- 11
1480. Reiser, M., Large-scale numerical simulation in semiconductor device modelling 1 (1972) 17- 38
1481. Reiser, M., On the stability of finite difference schemes in transient semiconductor problems 2 (1973) 65- 68
1482. Reissner, E., Note on the effect of transverse shear deformation in laminated anisotropic plates (see also 20 (1979) 211) 20 (1979) 203- 209
1483. Reissner, E., On small finite deflections of sheardeformable elastic plates 59 (1986) 227- 233
1484. Reissner, E., On asymptotic expansions for the sixth-order linear theory problem of transverse bending of orthotropic elastic plates 85 (1991) 75- 88
1485. Rencis, J.J. and K.-Y. Jong, A self-adaptive *h*-refinement technique for the boundary element method 73 (1989) 295- 316
1486. Rencontre, L.J., S. Caddemi and J.B. Martin, The relationship between the generalised mid-point and trapezoidal rules in incremental elasto- plasticity 96 (1992) 201- 212
1487. Renwei, X. and L. Peng, Structural optimization based on second-order approximations of functions and dual theory 65 (1987) 101- 114
1488. Resende, L. and J.B. Martin, A progressive damage 'continuum' model for granular materials 42 (1984) 1- 18
1489. Resende, L., A damage mechanics constitutive theory for the inelastic behaviour of concrete 60 (1987) 57- 93
1490. Rezayat, M., D.J. Shippy and F.J. Rizzo, On time-harmonic elastic-wave analysis by the boundary element method for moderate to high frequencies 55 (1986) 349- 367  
34 (1982) 1065-1071
1491. Ricard, A., Tube collapse analysis using finite elements
1492. Rice, J.G. and R.J. Schnipke, A monotone streamline upwind finite element method for convection-dominated flows 48 (1985) 313- 327
1493. Rice, J.G. and R.J. Schnipke, An equal-order velocity-pressure formulation that does not exhibit spurious pressure modes 58 (1986) 135- 149
1494. Rice, J.R., R.M. McMeeking, D.M. Parks and E.P. Sorensen, Recent finite element studies in plasticity and fracture mechanics 17/18 (1979) 411- 442
1495. Riks, E., Some computational aspects of the stability analysis of nonlinear structures 47 (1984) 219- 259
1496. Rippa, S. and B. Schiff, Minimum energy triangulations for elliptic problems 84 (1990) 257- 274
1497. Roberson, R.E., The path matrix of a graph, its construction and its use in evaluating certain products 42 (1984) 47- 56
1498. Roberson, R.E., Correction of numerical error when two direction cosine columns are used as kinematical variables 46 (1984) 151- 158

1499. Roberson, R.E., Correction of numerical error in kinematical differential equations when one direction cosine is known 46 (1984) 307- 312
1500. Roberson, R.E., Comment on spanning trees for multibody dynamic simulation 48 (1985) 237- 238
1501. Robichaud, M.P., P.A. Tanguy and M. Fortin, An improved finite element iterative method for three-dimensional fluid flow problems 75 (1989) 359- 368
1502. Robinson, J., Basis for isoparametric stress elements 2 (1973) 43- 63
1503. Robinson, J., A single element test 7 (1976) 191- 200
1504. Robinson, J., A warped quadrilateral strain membrane element 7 (1976) 359- 367
1505. Robinson, J., Stress elements with holes 11 (1977) 309- 318
1506. Robinson, J., Automatic selection of independent freedoms in constraint conditions with constant terms 29 (1981) 241- 244
1507. Rodi, W. and S.K. Srivatsa, A locally elliptic calculation procedure for three-dimensional flows and its application to a jet in a cross-flow 23 (1980) 67- 83
1508. Rodi, W., S. Majumdar and B. Schönung, Finite volume methods for two-dimensional incompressible flows with complex boundaries 75 (1989) 369- 392
1509. Rodrigues, H.C., Shape optimal design of elastic bodies using a mixed variational formulation 69 (1988) 29- 44
1510. Rogg, B., Adaptive methods in computational fluid dynamics of chemically reacting flows 90 (1991) 659- 670
1511. Rogier, F. and J. Segre, Mixed finite element method applied to a magnetostatic problem 94 (1992) 1- 11
1512. Rosanoff, R.A. and H. Webel, On the convergence rate of iterative methods for the solution of positive definite linear equations 7 (1976) 369- 375
1513. Rothert, H., H. Idelbeger, W. Jacobi and L. Niemann, On geometrically nonlinear contact problems with friction 51 (1985) 139- 155
1514. Rothert, H. and W. Dehmel, Nonlinear analysis of isotropic, orthotropic and laminated plates and shells 64 (1987) 429- 446
1515. Rouff, M., On the control of partial differential equations: A  $C^k$  discretization method 96 (1992) 173- 187
1516. Roussel, P., Numerical solution of static and dynamic equations of cables 9 (1976) 65- 74
1517. Rozenblum, G., Modal synthesis: Generalization of the MacNeal's method. Theoretical basis 48 (1985) 139- 154
1518. Rozvany, G.I.N., Optimal load transmission by flexure 1 (1972) 253- 263
1519. Rozvany, G.I.N. and R.D. Hill, Optimal plastic design: superposition principles and bounds on the minimum cost 13 (1978) 151- 173
1520. Rozvany, G.I.N., Optimal beam layouts: allowance for cost of shear 19 (1979) 49- 58
1521. Rozvany, G.I.N. and W. Prager, A new class of structural optimization problems: Optimal archgrids 19 (1979) 127- 150
1522. Rozvany, G.I.N., H. Nakamura and B.T. Kuhnell, Optimal archgrids: allowance for selfweight 24 (1980) 287- 304
1523. Rozvany, G.I.N., C.-M. Wang and M. Dow, Prager-structures: Archgrids and cable networks of optimal layout 31 (1982) 91- 113
1524. Rozvany, G.I.N. and M. Zhou, The COC algorithm, Part I: Cross-section optimization or sizing 89 (1991) 281- 308
1525. Ruas B. Santos, V., A direct method for solving two-dimensional one-phase Stefan problems 25 (1981) 51- 64



1526. Ruas, V., A class of asymmetric simplicial finite element methods for solving finite incompressible elasticity problems 27 (1981) 319- 343
1527. Rubinstein, R. and S.N. Atluri, Objectivity of incremental constitutive relations over finite time steps in computational finite deformation analyses 36 (1983) 277- 290
1528. Rubinstein, R., E.F. Punch and S.N. Atluri, An analysis of, and remedies for, kinematic modes in hybrid-stress finite elements: selection of stable, invariant stress fields 38 (1983) 63- 92
1529. Ryaben'kii, V.S., Local splines 5 (1975) 211- 225
1530. Saha, S., P.C. Das and N.N. Kishore, A finite element adaptive-refinement strategy for the capillary surface problem 92 (1991) 343- 352
1531. Saigal, S., Iteration schemes for improved convergence in boundary element reanalysis 84 (1990) 97- 107
1532. Saito, Y. and K. Miyazawa, Digital simulation of polyphase induction motors 6 (1975) 249- 264
1533. Saito, Y., Numerical method for space harmonic waves in polyphase induction motors 8 (1976) 335- 348
1534. Saito, Y., Numerical methods for polyphase induction motors 11 (1977) 151- 164
1535. Saito, Y., Method of magnetic circuits for nonlinear magnetostatic fields in polyphase induction motors at no-load 13 (1978) 105- 118
1536. Saito, Y., Three-dimensional analysis of nonlinear magnetostatic fields in a saturable reactor 16 (1978) 101- 115
1537. Saito, Y., Three-dimensional analysis of nonlinear magnetodynamic fields in a saturable reactor 22 (1980) 289- 308
1538. Saito, Y., H. Saotome and T. Yamamura, A lumped circuit model for a nonlinear inductor exhibiting dynamic hysteresis loops and its application to the electric circuits 38 (1983) 185- 202
1539. Saito, Y., S. Hayano, N. Tsuya and H. Saotome, Digital simulation of parallel inverters 49 (1985) 109- 119
1540. Salama, M. and S. Utku, Stress computation in displacement methods for two-material elastic media 10 (1977) 325- 338
1541. Salariya, A.K., Numerical solution of a differential equation in fluid mechanics 21 (1980) 211- 216
1542. Saleeb, A.F. and T.Y. Chang, On the hybrid-mixed formulation of  $C^0$  curved beam elements 60 (1987) 95- 121
1543. Samagaio, A. and N.S. Vlachos, Calculation of three-dimensional laminar flows in T-shaped junctions 75 (1989) 393- 407
1544. Sami, S., G. Collier and D.L. Eddingfield, Numerical modelling of high-speed modulated water jets 60 (1987) 303- 315
1545. Sander, G., M. Geradin, C. Nyssen and M. Hogge, Accuracy versus computational efficiency in nonlinear dynamics 17/18 (1979) 315- 340
1546. Sanders, R. and A. Weiser, A high order staggered grid method for hyperbolic systems of conservation laws in one space dimension 75 (1989) 91- 107
1547. Sandhu, R.S. and U. Salaam, Variational formulation of linear problems with nonhomogeneous boundary conditions and internal discontinuities 7 (1976) 75- 91



1548. Sandhu, R.S. and K.J. Singh, Reduced integration for improved accuracy of finite element approximations 14 (1978) 23- 37
1549. Saran, M., On the influence of the discretization density in the nonlinear analysis of frames 43 (1984) 173- 180
1550. Sarigul, N., J. Maitan and H.A. Kamel, Solution of nonlinear structural problems using array processors 34 (1982) 939- 954
1551. Satofuka, N., Large-scale method of lines solution of fluid dynamic equations on Japanese supercomputers 87 (1991) 353- 361
1552. Sawley, M.L. and S. Wüthrich, Non-equilibrium hypersonic flow simulations using the second-order boundary layer equations 89 (1991) 129- 140
1553. Schäfer, H., A contribution to the solution of contact problems with the aid of bond elements 6 (1975) 335- 353
1554. Schek, H.-J., The force density method for form finding and computation of general networks 3 (1974) 115- 134
1555. Schiehlen, W., Computational aspects in multibody system dynamics 90 (1991) 569- 582
1556. Schnabel, R.B., Concurrent function evaluations in local and global optimization 64 (1987) 537- 552
1557. Schnitzspan, H., Comment on "Continuous and discontinuous finite element methods for Burgers' equation", by P. Arminjon and C. Beauchamp (25 (1981) 65-84) 28 (1981) 361- 363
1558. Schönauer, W., K. Raith and G. Glotz, The principle of the difference of difference quotients as a key to the self-adaptive solution of nonlinear partial differential equations 28 (1981) 327- 359
1559. Schreurs, P.J.G., F.E. Veldpaus and W.A.M. Brekelmans, Simulation of forming processes, using the arbitrary Eulerian-Lagrangian formulation 58 (1986) 19- 36
1560. Schreyer, H.L., The generation of element stiffness matrices from base matrices in the node space 94 (1992) 263- 283
1561. Schulkes, R.M.S.M. and C. Cuvelier, On the computation of normal modes of a rotating, viscous, incompressible fluid with a capillary free boundary 92 (1991) 97- 120
1562. Schulz, J.C., Global mode hourglassing control 64 (1987) 553- 566
1563. Schwarz, H.R., Eigenfrequencies of tuning-forks 1 (1972) 159- 172
1564. Schwarz, H.R., Stability of Kepler motion 1 (1972) 279- 299
1565. Schwarz, H.R., The eigenvalue problem  $(A - \lambda B)x = 0$  for symmetric matrices of high order 3 (1974) 11- 28
1566. Schwarz, H.R., Two algorithms for treating  $Ax = \lambda Bx$  12 (1977) 181- 199
1567. Schweizerhof, K.H. and P. Wriggers, Consistent linearization for path following methods in nonlinear FE analysis 59 (1986) 261- 279
1568. Segal, A., On the numerical solution of the Stokes equations using the finite element method 19 (1979) 165- 185
1569. Selmin, V., J. Donea and L. Quartapelle, Finite element methods for nonlinear advection 52 (1985) 817- 845
1570. Sepehrmoori, K. and G.F. Carey, Numerical integration of semidiscrete evolution systems 27 (1981) 45- 61
1571. Serbin, S.M., On a fourth-order unconditionally stable scheme for damped second-order systems 23 (1980) 333- 340

1572. Squazzero, P., M. Kindelan and A. Kamel, Dispersion-bounded numerical integration of the elastodynamic equations with cost-effective staggered schemes 80 (1990) 165- 172
1573. Shabana, A.A., Transient analysis of flexible multi-body systems. Part I: dynamics of flexible bodies 54 (1986) 75- 91
1574. Shabana, A.A. and S.K. Niamathullah, Total Lagrangian formulation for large-displacement analysis of the triangular finite elements 72 (1989) 195- 199
1575. Shakib, F., T.J.R. Hughes and Z. Johan, A multi-element group preconditioned GMRES algorithm for nonsymmetric systems arising in finite element analysis 75 (1989) 415- 456
1576. Shakib, F. and T.J.R. Hughes, A new finite element formulation for computational fluid dynamics: IX. Fourier analysis of space-time Galerkin/least-squares algorithms 87 (1991) 35- 58
1577. Shakib, F., T.J.R. Hughes and Z. Johan, A new finite element formulation for computational fluid dynamics: X. The compressible Euler and Navier-Stokes equations 89 (1991) 141- 219
1578. She, Z.-S., E. Jackson and S.A. Orszag, Vortex structure and dynamics in turbulence 80 (1990) 173- 183
1579. Sheela, B.V. and P. Ramamoorthy, SWIFT - A new constrained optimization technique 6 (1975) 309- 317  
19 (1979) 99- 106
1580. Sheela, B.V., An optimized step-size random search (OSSRS)
1581. Shen, J., Numerical simulation of the regularized driven cavity flows at high Reynolds numbers 80 (1990) 273- 280
1582. Shen, K.-Y. and S.J. Luo, A second-order approximate method for transonic small-disturbance potential flow and its application to the analysis of flows over airfoils 49 (1985) 149- 161
1583. Shen, K.-Y. and X.-H. Zhang, Transonic flow calculations for rigid and flexible wings using a higher-order approximation method 60 (1987) 139- 151
1584. Shephard, M.S., M.A. Yerry and P.L. Baehmann, Automatic mesh generation allowing for efficient a priori and a posteriori mesh refinement 55 (1986) 161- 180
1585. Shephard, M.S., P.L. Baehmann, M.K. Georges and E.V. Korngold, Framework for the reliable generation and control of analysis idealization 82 (1990) 257- 280
1586. Shestopal, V.O. and O.Y. Shestopal, Flow of metal in high-temperature extrusion 25 (1981) 85- 99
1587. Shi, Z.-c., Convergence properties of two nonconforming finite elements 48 (1985) 123- 137  
62 (1987) 71- 88
1588. Shi, Z.-C., Convergence of the TRUNC Plate Element
1589. Shin, Y.S., R.T. Haftka, L.T. Watson and R.H. Plaut, Tracing structural optima as a function of available resources by a homotopy method 70 (1988) 151- 164
1590. Shopov, P.J. and I.B. Bazhlekov, Numerical method for viscous hydrodynamic problems with dynamic contact lines 91 (1991) 1157-1174
1591. Shore, S., J.L. Wilson and G.A. Semsarzadeh, Interactive techniques with graphical output for bridge analyses 5 (1975) 197- 209
1592. Shubin, G.R. and J.B. Bell, An analysis of grid orientation effect in numerical simulation of miscible displacement 47 (1984) 47- 71

1593. Shyy, W., Determination of relaxation factors for high cell Peclet number flow simulation 43 (1984) 221- 230
1594. Shyy, W., A numerical study of annular dump diffuser flows 53 (1985) 47- 65
1595. Shyy, Y.K., C. Fleury and K. Izadpanah, Shape optimal design using high-order elements 71 (1988) 99- 116
1596. Siekmann, J. and K. Dittrich, Computer study of bubble motion in a rotating liquid 10 (1977) 291- 301
1597. Siekmann, J., W. Scheideler and P. Tietze, Static meniscus configurations in propellant tanks under reduced gravity 28 (1981) 103- 116
1598. Sikora, Z., On well-posedness of BVP in localization problems 90 (1991) 885- 903
1599. Silling, S.A., Finite difference modeling of phase changes and localization in elasticity 70 (1988) 251- 273
1600. Silvester, D.J. and N. Kechkar, Stabilised bilinear-constant velocity-pressure finite elements for the conjugate gradient solution of the Stokes problem 79 (1990) 71- 86
1601. Simha Prasad, D.S. and V.S. Holla, Doublet lattice method - schemes for CPU time reduction 23 (1980) 59- 65
1602. Simo, J.C. and R.L. Taylor, Penalty function formulations for incompressible nonlinear elastostatics 35 (1982) 107- 118
1603. Simo, J.C., K.D. Hjelmstad and R.L. Taylor, Numerical formulations of elasto-viscoplastic response of beams accounting for the effect of shear 42 (1984) 301- 330
1604. Simo, J.C. and K.S. Pister, Remarks on rate constitutive equations for finite deformation problems: computational implications 46 (1984) 201- 215
1605. Simo, J.C. and R.L. Taylor, Consistent tangent operators for rate-independent elastoplasticity 48 (1985) 101- 118
1606. Simo, J.C., A finite strain beam formulation. The three-dimensional dynamic problem. Part I 49 (1985) 55- 70
1607. Simo, J.C. and M. Ortiz, A unified approach to finite deformation elastoplastic analysis based on the use of hyperelastic constitutive equations 49 (1985) 221- 245
1608. Simo, J.C., P. Wriggers and R.L. Taylor, A perturbed Lagrangian formulation for the finite element solution of contact problems 50 (1985) 163- 180
1609. Simo, J.C., R.L. Taylor and K.S. Pister, Variational and projection methods for the volume constraint in finite deformation elasto-plasticity 51 (1985) 177- 208
1610. Simo, J.C. and L. Vu-Quoc, A three-dimensional finite-strain rod model. Part II: Computational aspects 58 (1986) 79- 116
1611. Simo, J.C., On a fully three-dimensional finite-strain viscoelastic damage model: Formulation and computational aspects 60 (1987) 153- 173
1612. Simo, J.C., A  $J_2$ -flow theory exhibiting a corner-like effect and suitable for large-scale computation 62 (1987) 169- 194
1613. Simo, J.C. and L. Vu-Quoc, On the dynamics in space of rods undergoing large motions - a geometrically exact approach 66 (1988) 125- 161
1614. Simo, J.C., A framework for finite strain elastoplasticity based on maximum plastic dissipation and the multiplicative decomposition: Part I. Continuum formulation 66 (1988) 199- 219

1615. Simo, J.C., A framework for finite strain elastoplasticity based on maximum plastic dissipation and the multiplicative decomposition. Part II. Computational aspects 68 (1988) 1- 31
1616. Simo, J.C. and D.D. Fox, On a stress resultant geometrically exact shell model. Part I: Formulation and optimal parametrization 72 (1989) 267- 304
1617. Simo, J.C., D.D. Fox and M.S. Rifai, On a stress resultant geometrically exact shell model. Part II: The linear theory; Computational aspects 73 (1989) 53- 92
1618. Simo, J.C., J.G. Kennedy and R.L. Taylor, Complementary mixed finite element formulations for elastoplasticity 74 (1989) 177- 206
1619. Simo, J.C., D.D. Fox and M.S. Rifai, On a stress resultant geometrically exact shell model. Part III: Computational aspects of the nonlinear theory 79 (1990) 21- 70
1620. Simo, J.C., M.S. Rifai and D.D. Fox, On a stress resultant geometrically exact shell model. Part IV: Variable thickness shells with through-the-thickness stretching 81 (1990) 91- 126
1621. Simo, J.C. and R.L. Taylor, Quasi-incompressible finite elasticity in principal stretches. Continuum basis and numerical algorithms 85 (1991) 273- 310
1622. Simo, J.C., Nonlinear stability of the time-discrete variational problem of evolution in nonlinear heat conduction, plasticity and viscoplasticity 88 (1991) 111- 131
1623. Simo, J.C., D.D. Fox and T.J.R. Hughes, Formulations of finite elasticity with independent rotations 95 (1992) 277- 288
1624. Simo, J.C. and J.G. Kennedy, On a stress resultant geometrically exact shell model. Part V. Nonlinear plasticity: formulation and integration algorithms 96 (1992) 133- 171
1625. Simo, J.C., The (symmetric) Hessian for geometrically nonlinear models in solid mechanics: Intrinsic definition and geometric interpretation 96 (1992) 189- 200
1626. Simo, J.C. and C. Miehe, Associative coupled thermoplasticity at finite strains: Formulation, numerical analysis and implementation 98 (1992) 41- 104
1627. Simo, J.C., Algorithms for static and dynamic multiplicative plasticity that preserve the classical return mapping schemes of the infinitesimal theory 99 (1992) 61- 112
1628. Simo, J.C., N. Tarnow and K.K. Wong, Exact energy-momentum conserving algorithms and symplectic schemes for nonlinear dynamics 100 (1992) 63- 116
1629. Singh, B. and J. Lal, Effect of magnetic field orientation and wall conductivity on MHD channel flows using finite element method 40 (1983) 159- 170
1630. Singh, J.P. and S.S. Dey, Parametric instability of rectangular plates by the energy based finite difference method 97 (1992) 1- 21
1631. Singh, K.P. and B. Paul, A method for solving ill-posed integral equations of the first kind 2 (1973) 339- 348
1632. Singhal, A.K. and D.B. Spalding, Predictions of two-dimensional boundary layers with the aid of the  $k-\epsilon$  model of turbulence 25 (1981) 365- 383
1633. Sjøtoft, E., The determination of optimum accelerating factors for successive overrelaxation on an equidistant and non-equidistant rectangular net 19 (1979) 223- 234

1634. Sjøntoft, E. and S. Steenstrup, The determination of optimum acceleration factors for successive overrelaxation on a rectangular net for inhomogeneous media 21 (1980) 357- 360
1635. Služalec, A., Thermo-elastic stresses within a rectangular conductor carrying an alternating current 61 (1987) 253- 264
1636. Služalec, A., Temperature rise in elastic-plastic metal 96 (1992) 293- 302
1637. Smith, R.E. and L.-E. Eriksson, Algebraic grid generation 64 (1987) 285- 300
1638. Smolinski, P., T. Belytschko and W.K. Liu, Stability of multi-time step partitioned transient analysis for first-order systems of equations 65 (1987) 115- 125
1639. Smolinski, P., A variational formulation for the generalized Galerkin method for the convection-diffusion equation 73 (1989) 93- 98
1640. Smolinski, P., A variable multi-step method for transient heat conduction 86 (1991) 61- 71
1641. Smolinski, P., Stability of variable explicit time integration for unsteady diffusion problems 93 (1991) 247- 252
1642. Smolinski, P., An explicit multi-time step integration method for second order equations 94 (1992) 25- 34
1643. Smolinski, P., Stability analysis of a multi-time step explicit integration method 95 (1992) 291- 300
1644. Soliman, M.O. and A.J. Baker, Accuracy and convergence of a finite element algorithm for turbulent boundary layer flow 28 (1981) 81- 102
1645. Somervaille, I., Quadrature matrices and elastica problems 69 (1988) 345- 354
1646. Song, J.O. and E.J. Haug, Dynamic analysis of planar flexible mechanisms 24 (1980) 359- 381
1647. Song, Y., A numerical study of ignition in a premixed flame burner 90 (1991) 671- 686
1648. Sorensen, E.P., A numerically expedient scheme for elastic-plastic calculations in incremental finite element analysis 13 (1978) 89- 93
1649. Soriano, H.L., Rutishauser's modified method for computing the eigenvalues of symmetric matrices 35 (1982) 255- 269
1650. Sotomayer, W.A., L.N. Sankar and J.B. Malone, A comparison of numerical algorithms for unsteady transonic flow 64 (1987) 237- 265
1651. Soubbaramayer and J. Billet, A numerical method for optimizing the gas flow field in a centrifuge 24 (1980) 165- 185
1652. Soulaïmani, A., M. Fortin, Y. Ouellet, G. Dhett and F. Bertrand, Simple continuous pressure elements for two- and three-dimensional incompressible flows 62 (1987) 47- 69
1653. Soulaïmani, A., M. Fortin, G. Dhett and Y. Ouellet, Finite element simulation of two- and three-dimensional free surface flows 86 (1991) 265- 296
1654. Sparis, P.D. and S.G. Mouroutsos, Cranking planar mechanisms on a microcomputer 40 (1983) 261- 276
1655. Sparis, P.D., A. Karkanis and S. Pergantis, Conjugate method solutions of the biharmonic equation for the generation of boundary orthogonal grids 98 (1992) 273- 290
1656. Spilker, R.L. and B.E. Engelmann, Hybrid-stress isoparametric elements for moderately thick and thin multilayer plates 56 (1986) 339- 361
1657. Srinatha, H.R. and R.W. Lewis, A finite element method for thermo-viscoelastic analysis of plane problems 25 (1981) 21- 33



1658. Srinivasan, R.S. and S.V. Ramachandran, Large deflection of clamped skew plates 7 (1976) 219- 233
1659. Stavitsky, D., E. Macagno and J. Christensen, On the eighteen degrees of freedom triangular element 26 (1981) 265- 283
1660. Stavrinidis, C.P., Elimination of singularities in harmonic elements 10 (1977) 355- 357
1661. Stavrinidis, C.P., A procedure for coupling dynamical equations 20 (1979) 1- 7
1662. Steger, J.L., Coefficient matrices for implicit finite difference solution of the inviscid fluid conservation law equations 13 (1978) 175- 188
1663. Steger, J.L. and J.A. Benek, On the use of composite grid schemes in computational aerodynamics 64 (1987) 301- 320
1664. Stein, E. and R. Ahmad, On the stress computation in finite element models based upon displacement approximations 4 (1974) 81- 96
1665. Stein, E. and R. Ahmad, An equilibrium method for stress calculation using finite element displacement models 10 (1977) 175- 198
1666. Stein, E. and P. Wriggers, Calculation of impact-contact problems of thin elastic shells taking into account geometrical nonlinearities within the contact region 34 (1982) 861- 880
1677. Stein, E., D. Bischoff, G. Brand and L. Plank, Adaptive multi-grid methods for finite element systems with bi- and unilateral constraints 52 (1985) 873- 884
1668. Stein, E. and R. Rolfes, Mechanical conditions for stability and optimal convergence of mixed finite elements for linear plane elasticity 84 (1990) 77- 95
1669. Stein, L.R., R.A. Gentry and C.W. Hirt, Computational simulation of transient blast loading on three-dimensional structures 11 (1977) 57- 74
1670. Steinmann, P. and K. Willam, Performance of enhanced finite element formulation in localized failure computation 90 (1991) 845- 867
1671. Stenberg, R., On some three-dimensional finite elements for incompressible media 63 (1987) 261- 269
1672. Stephan, E. and W.L. Wendland, Boundary element method for membrane and torsion crack problems 36 (1983) 331- 358
1673. Stetson, K.A., I.R. Harrison and G.E. Palma, Redesigning structural vibration modes by inverse perturbation subject to minimal change theory 16 (1978) 151- 175
1674. Stolarski, H. and T. Belytschko, Large deformation rigid-plastic dynamics by an extremum principle 21 (1980) 217- 230
1675. Stolarski, H. and T. Belytschko, Shear and membrane locking in curved  $C^0$  elements 41 (1983) 219- 296
1676. Stolarski, H., N. Carpenter and T. Belytschko, A Kirchhoff-mode method for  $C^0$  bilinear and serendipity plate elements 50 (1985) 121- 145
1677. Stolarski, H. and T. Belytschko, On the equivalence of mode decomposition and mixed finite elements based on the Hellinger-Reissner principle. Part I: Theory 58 (1986) 249- 263
1678. Stolarski, H. and T. Belytschko, On the equivalence of mode decomposition and mixed finite elements based on the Hellinger-Reissner principle. Part II: Applications 58 (1986) 265- 284
1679. Stolarski, H. and T. Belytschko, Limitation principles for mixed finite elements based on the Hu-Washizu variational formulation 60 (1987) 195- 216
1680. Storti, M., L.A. Crivelli and S.R. Idelsohn, An efficient tangent scheme for solving phase-change problems 66 (1988) 65- 86

1681. Storti, M., N. Nigro and S. Idelsohn, Multigrid methods and adaptive refinement techniques in elliptic problems by finite element methods 93 (1991) 13- 30
1682. Strang, G. and R.V. Kohn, Hencky-Prandtl nets and constrained Michell trusses 36 (1983) 207- 222
1683. Strouboulis, T., P. Devloo and J.T. Oden, A moving-grid finite element algorithm for supersonic flow interaction between moving bodies 59 (1986) 235- 255
1684. Strouboulis, T. and J.T. Oden, A posteriori error estimation of finite element approximations in fluid mechanics 78 (1990) 201- 242
1685. Strouboulis, T. and K.A. Haque, Recent experiences with error estimation and adaptivity, Part I: Review of error estimators for scalar elliptic problems 97 (1992) 399- 436
1686. Strouboulis, T. and K.A. Haque, Recent experiences with error estimation and adaptivity, Part II: Error estimation for  $h$ -adaptive approximations on grids of triangles and quadrilaterals 100 (1992) 359- 430
1687. Stubley, G.D., G.D. Raithby, A.B. Strong and K.A. Woolner, Simulation of convection and diffusion processes by standard finite difference schemes and by influence schemes 35 (1982) 153- 168
1688. Subrahmanyam, M.B. and T. Wah, Vibration of quadrilateral plates 43 (1984) 315- 323
1689. Succi, S., G. Radicati, Y. Robert, K. Appert and J. Vaclavik, Finite element modelling of weak plasma turbulence 75 (1989) 543- 556
1690. Suh, Y.S., A. Agah-Tehrani and K. Chung, Stress analysis of axisymmetric extrusion in the presence of strain-induced anisotropy modeled as combined isotropic-kinematic hardening 93 (1991) 127- 150
1691. Sun, J.Q. and C.S. Hsu, Global analysis of nonlinear dynamical systems with fuzzy uncertainties by the cell mapping method 83 (1990) 109- 120
1692. Sutcliffe, W.J. and J. Mistry, Shell segmentation requirements for numerical integration solutions 7 (1976) 179- 190
1693. Suzuki, K. and N. Kikuchi, A homogenization method for shape and topology optimization 93 (1991) 291- 318
1694. Svanberg, K., Optimization of geometry in truss design 28 (1981) 63- 80
1695. Svec, O.J. and G.M. McNeice, Finite element analysis of finite sized plates bonded to an elastic half-space 1 (1972) 265- 277
1696. Svec, O.J., The unbonded contact problem of a plate on the elastic half space 3 (1974) 105- 113
1697. Swannell, P. and C.H. Tranberg, Procedures for the forced, damped vibration analysis of structural frames using distributed parameter models 16 (1978) 291- 302
1698. Swoboda, G. and O. Neuner, Non-linear analysis of prestressed plates 34 (1982) 1073-1088
1699. Szabó, B.A., Mesh design for the  $p$ -version of the finite element method 55 (1986) 181- 197
1700. Szabó, B.A., The  $p$ - and  $h$ - $p$  versions of the finite element method in solid mechanics 80 (1990) 185- 195
1702. Szabó, B.A., The use of a priori estimates in engineering computations 82 (1990) 139- 154
1702. Szabó, L., Discussion of "On constitutive relations at finite strain: hypoelasticity and elasto-plasticity with isotropic or kinematic hardening, by S.N. Atluri" 67 (1988) 125- 127

1703. Sze, K.Y. and C.L. Chow, Efficient hybrid/mixed elements using admissible matrix formulation 99 (1992) 1- 26
1704. Szelag, D. and Z. Mroz, Optimal design of vibrating beams with unspecified support reactions 19 (1979) 333- 349
1705. Szilard, R., An energy balancing method for large displacement analysis of structures 34 (1982) 801- 817
1706. Szmids, K., Discrete radiation boundary conditions for a semi-infinite layer of fluid 40 (1983) 245- 260
1707. Szmids, K., Finite element approach to steady-state vibrations in a fluid of finite depth 46 (1984) 259- 276
1708. Szmids, K., Finite difference method and a spurious reflection of waves in a layer of fluid 60 (1987) 31- 44
1709. Szymczak, W.G., An analysis of viscous splitting and adaptivity for steady-state convection-diffusion problems 67 (1988) 311- 354
1710. Tabarrok, B. and S. Dost, Some variational formulations for large deformation analysis of plates 22 (1980) 279- 288
1711. Tabarrok, B. and M. Ziad Saghir, A new mixed formulation for 2D incompressible flows 43 (1984) 81- 102
1712. Tabarrok, B. and L. Assamoi, A new variational principle in elastodynamics 61 (1987) 303- 321
1713. Tabarrok, B., M. Farshad and H. Yi, Finite element formulation of spatially curved and twisted rods 70 (1988) 275- 299
1714. Tabarrok, T., J. Xu and R.G. Fenton, A finite element procedure for plane strain metal flow within specified plastic boundaries 63 (1987) 1- 14
1715. Tadmor, E., Shock capturing by the spectral viscosity method 80 (1990) 197- 208
1716. Takahashi, S. and C.A. Brebbia, Validation of the boundary element flexibility approach for elastic contact analysis 93 (1991) 151- 168
1717. Talaslidis, D. and G. Wempner, A simple finite element for elastic-plastic deformations of shells 34 (1982) 1051-1064
1718. Tamaddon-Jahromi, H.R., P. Townsend and M.F. Webster, Numerical solution of unsteady viscous flows 95 (1992) 301- 315
1719. Tamma, K.K. and S.B. Railkar, Nonlinear/linear unified thermal stress formulations: Transfinite element approach 64 (1987) 415- 428
1720. Tamma, K.K. and R.R. Namburu, A new finite element based Lax-Wendroff/Taylor-Galerkin methodology for computational dynamics 71 (1988) 137- 150
1721. Tanaka, M. and Y. Masuda, Boundary element method applied to certain structural-acoustic coupling problems 71 (1988) 225- 234
1722. Tang, J.W. and D.J. Turcke, Characteristics of optimal grids 11 (1977) 31- 37
1723. Tanner, R.I., R.E. Nickell and R.W. Bilger, Finite element methods for the solution of some incompressible non-Newtonian fluid mechanics problems with free surfaces (Erratum, 6 (3) (1975)) 6 (1975) 155- 174
1724. Tasaka, S., Stability analysis of a finite element scheme for the heat equation with a random initial condition 29 (1981) 109- 113
1725. Tasaka, S., Convergence of statistical finite element solutions of the heat equation with a random initial condition 39 (1983) 131- 136
1726. Taylor, C. and A.Z. Ijam, A finite element numerical solution of natural convection in enclosed cavities (see also 25 (1981) 49-50) 19 (1979) 429- 446

1727. Taylor, L.M. and E.B. Becker, Some computational aspects of large deformation, rate-dependent plasticity problems 41 (1983) 251- 277
1728. Taylor, L.M., E.-P. Chen and J.S. Kuszmaul, Microcrack-induced damage accumulation in brittle rock under dynamic loading 55 (1986) 301- 320
1729. Teixeira de Freitas, J.A., A kinematic model for plastic limit analysis of solids by the boundary integral method 88 (1991) 189- 205
1730. Tessler, A. and T.J.R. Hughes, An improved treatment of transverse shear in the Mindlin-type four-node quadrilateral element 39 (1983) 311- 335
1731. Tessler, A. and T.J.R. Hughes, A three-node Mindlin plate element with improved transverse shear 50 (1985) 71- 101
1732. Tessler, A., A priori identification of shear locking and stiffening in triangular Mindlin elements 53 (1985) 183- 200
1733. Tessler, A., A  $C^0$ -anisoparametric three-node shallow shell element 78 (1990) 89- 103
1734. Tessler, A., A higher-order plate theory with ideal finite element suitability 85 (1991) 183- 205
1735. Tezduyar, T.E. and D.K. Ganjoo, Petrov-Galerkin formulations with weighting functions dependent upon spatial and temporal discretization: Applications to transient convection-diffusion problems 59 (1986) 49- 71
1736. Tezduyar, T.E. and Y.J. Park, Discontinuity-capturing finite element formulations for nonlinear convection-diffusion-reaction equations 59 (1986) 307- 325
1737. Tezduyar, T.E., Finite element formulation of the vorticity-stream function form of the incompressible Euler equations on multiply-connected domains 73 (1989) 331- 339
1738. Tezduyar, T.E. and J. Liou, Adaptive implicit-explicit finite element algorithms for fluid mechanics problems 78 (1990) 165- 179
1739. Tezduyar, T.E. and J. Liou, Computation of spatially periodic flows based on the vorticity-stream function formulation 83 (1990) 121- 142
1740. Tezduyar, T.E. and J. Liou, On the downstream boundary conditions for the vorticity-stream function formulation of two-dimensional incompressible flows 85 (1991) 207- 217
1741. Tezduyar, T.E., S. Mittal and R. Shih, Time-accurate incompressible flow computations with quadrilateral velocity-pressure elements 87 (1991) 363- 384
1742. Tezduyar, T.E., M. Behr and J. Liou, A new strategy for finite element computations involving moving boundaries and interfaces—The deforming-spatial-domain/space-time procedure: I. The concept and the preliminary numerical tests 94 (1992) 339- 351
1743. Tezduyar, T.E., M. Behr, S. Mittal and J. Liou, A new strategy for finite element computations involving moving boundaries and interfaces—The deforming-spatial-domain/space-time procedure: II. Computation of free-surface flows, two-liquid flows, and flows with drifting cylinders 94 (1992) 353- 371
1744. Tezduyar, T.E., S. Mittal, S.E. Ray and R. Shih, Incompressible flow computations with stabilized bilinear and linear equal-order-interpolation velocity-pressure elements 95 (1992) 221- 242
1745. Tezduyar, T.E., M. Behr, S.K. Aliabadi, S. Mittal and S.E. Ray, A new mixed preconditioning method for finite element computations 99 (1992) 27- 42

1746. Theocaris, P.S., N. Ioakimidis and A.C. Chrysakis, On the application of numerical integration rules to the solution of some singular integral equations 24 (1980) 1- 11
1747. Theocaris, P.S., G. Tsamasphyros and E.E. Theotokoglou, A combined integral-equation and finite-element method for the evaluation of stress intensity factors 31 (1982) 117- 127
1748. Theodorou, G. and D. Bellet, Laminar flows of a non-Newtonian fluid in mild stenosis 54 (1986) 111- 123
1749. Thierauf, G., A method for optimal limit design of structures with alternative loads 16 (1978) 135- 149
1750. Thoenes, J., S.J. Robertson and L.W. Spradley, Application of finite element methods to viscous subsonic flow 51 (1985) 495- 506
1751. Thomas, G., Boundedness and definiteness qualities of a functional equation for nonconforming trial functions 15 (1978) 335- 351
1752. Thompson, J.F., A general three-dimensional elliptic grid generation system on a composite block structure 64 (1987) 377- 411
1753. Tielking, J.T. and R.A. Schapery, A method for shell contact analysis 26 (1981) 181- 195
1754. Tikhonov, V.S. and V.I. Lebedev, Calculation of frequency responses of a flexible string in a rotational motion 38 (1983) 169- 183
1755. Tin-Loi, F. and M.B. Wong, Nonholonomic computer analysis of elastoplastic frames 72 (1989) 351- 364
1756. Tomita, Y. and A. Shindo, On the bifurcation and post-bifurcation behaviour of thick circular elastic-plastic tubes under lateral pressure 35 (1982) 207- 219
1757. Tortorelli, D.A., R.B. Haber and S.C.-Y. Lu, Design sensitivity analysis for nonlinear thermal systems 77 (1989) 61- 77
1758. Touzani, R., Implementation of the discontinuous finite element method for hyperbolic equations 68 (1988) 115- 123
1759. Trowbridge, C.W., Low frequency electromagnetic field computation in three dimensions 52 (1985) 653- 674
1760. Tsamasphyros, G. and P.S. Theocaris, A recurrence formula for the direct solution of singular integral equations 31 (1982) 79- 89
1761. Tsamasphyros, G. and A.E. Giannakopoulos, The mapped elements for the solution of cracked bodies 49 (1985) 331- 342
1762. Tsamasphyros, G., Methods for combination of finite element and singular integral equation methods 60 (1987) 45- 56
1763. Tsay, J.J. and J.S. Arora, Nonlinear structural design sensitivity analysis for path dependent problems. Part 1. General theory 81 (1990) 183- 208
1764. Tsay, J.J., J.E.B. Cardoso and J.S. Arora, Nonlinear structural design sensitivity analysis for path dependent problems. Part 2. Analytical examples 81 (1990) 209- 228
1765. Tuğcu, P., Tensile instability in a round bar including the effect of material strain-rate sensitivity 93 (1991) 335- 351
1766. Twizell, E.H. and A.Q.M. Khaliq, A difference scheme with high accuracy in time for fourth-order parabolic equations 41 (1983) 91- 104
1767. Twizell, E.H., A sixth-order extrapolation method for special nonlinear fourth-order boundary value problems 62 (1987) 293- 303
1768. Twizell, E.H., A family of numerical methods for the solution of high-order general initial value problems 67 (1988) 15- 25



1769. Tworzydło, W.W., J.T. Oden and E.A. Thornton, Adaptive implicit/explicit finite element method for compressible viscous flows 95 (1992) 397- 440
1770. Tworzydło, W.W., C.Y. Huang and J.T. Oden, Adaptive implicit/explicit finite element methods for axisymmetric viscous turbulent flows with moving boundaries 97 (1992) 245- 288
1771. Ueda, Y. and T. Yao, The plastic node method: A new method of plastic analysis 34 (1982) 1089-1104
1772. Ueda, Y., K. Nakacho and M. Fujikubo, Application of the plastic node method to thermal elastic-plastic and dynamic problems 51 (1985) 157- 175
1773. Ueda, Y. and M. Fujikubo, Generalization of the plastic node method 92 (1991) 33- 53
1774. Ueda, Y. and M. Fujikubo, Plastic node method considering strain-hardening effects 94 (1992) 317- 337
1775. Underwood, P.G. and K.C. Park, A variable-step central difference method for structural dynamics analysis - Part 1. Theoretical aspects 22 (1980) 241- 258
1776. Ungarish, M., Modeling and simulation of separating mixture flows 91 (1991) 1175-1185
1777. Utku, M. and G.F. Carey, Boundary penalty techniques 30 (1982) 103- 118
1778. Utku, M. and G.F. Carey, Penalty resolution of the Babuška circle paradox 41 (1983) 11- 28
1779. Vahdani, B. and L.C. Wellford Jr., A singular perturbation-finite element procedure for the analysis of structures with a small bending rigidity 66 (1988) 221- 240
1780. Van der Giessen, E., FE thermomechanics and material sampling points 64 (1987) 447- 465
1781. Van der Lugt, J. and J. Huetink, Thermal mechanically coupled finite element analysis in metal-forming processes 54 (1986) 145- 160
1782. Van der Werff, K., Dynamic analysis of planar mechanisms with rigid links 11 (1977) 1- 18
1783. Vandeven, H., On the eigenvalues of second-order spectral differentiation operators 80 (1990) 313- 318
1784. Vanka, S.P., A calculation procedure for three-dimensional steady recirculating flows using multigrid methods 55 (1986) 321- 338
1785. Vanka, S.P., Block-implicit multigrid calculation of two-dimensional recirculating flows 59 (1986) 29- 48
1786. Varma, A., C. Georgakis, N.R. Amundson and R. Aris, Computational methods for the tubular chemical reactor 8 (1976) 319- 330
1787. Varpasuo, P., Incremental analysis of axisymmetric shallow shells with varying strain-displacement equations 21 (1980) 153- 169
1788. Venkatesh, A. and K.P. Rao, Analysis of laminated shells with laminated stiffeners using rectangular shell finite elements 38 (1983) 255- 272
1789. Veselić, K., A global Jacobi method for a symmetric indefinite problem  $Sx = \lambda Tx$  38 (1983) 273- 290
1790. Vitiello, E. and K.S. Pister, Optimal earthquake-resistant design: a reliability-based, global cost approach 8 (1976) 277- 299
1791. Vold, H., Substructure analysis with linear constraints using the natural factor formulation 10 (1977) 151- 163

1792. Von Fuchs, G., J.R. Roy and E. Schrem, Hypermatrix solution of large sets of symmetric positive-definite linear equations 1 (1972) 197- 216
1793. Voskresensky, G.P., Numerical solution of the problem of unsteady supersonic flow around the front part of the wings with a detached shock wave 19 (1979) 257- 275
1794. Voskresensky, G.P., Computation of supersonic inviscid flow around wings with a detached shock wave 38 (1983) 45- 61
1795. Voyiadjis, G.Z. and M. Foroozesh, A finite strain, total Lagrangian finite element solution for metal extrusion problems 86 (1991) 337- 370
1796. Vu-Quoc, L. and J.A. Mora, A class of simple and efficient degenerated shell elements—Analysis of global spurious-mode filtering 74 (1989) 117- 175
1797. Vu-Quoc, L. and M. Olson, A computational procedure for interaction of high-speed vehicles on flexible structures without assuming known vehicle nominal motion 76 (1989) 207- 244
1798. Vu-Quoc, L., A perturbation method for dynamic analyses using under-integrated shell elements 79 (1990) 129- 172
1799. Wada, A. and H. Kubota, Static and dynamic analysis of collapse behaviour of steel structures 91 (1991) 1365-1378
1800. Wait, R., Finite element methods for elliptic problems with singularities 13 (1978) 141- 150
1801. Wakefield, R.R. and F. Tin-Loi, Large scale nonholonomic elastoplastic analysis using a linear complementarity formulation 84 (1990) 229- 242
1802. Wang, J.H. and H.R. Chen, A substructure modal synthesis method with high computational efficiency 79 (1990) 203- 217
1803. Wang, K.C. and G.F. Carey, Adaptive grids for coupled viscous flow and transport 82 (1990) 365- 383
1804. Wang, S.-C., Convergence to unconfined flow of the three-dimensional transonic self-correcting wind tunnel 28 (1981) 191- 205
1805. Wang, W.-C. and J.-T. Chen, Stress analysis of finite interfacially cracked bimaterial plates by using the variational method 73 (1989) 153- 171
1806. Wang, X.-X., J. Qian and M.-K. Huang, A boundary integral equation formulation for large amplitude nonlinear vibration of thin elastic plates 86 (1991) 73- 86
1807. Warby, M.K. and J.R. Whiteman, Finite element model of viscoelastic membrane deformation 68 (1988) 33- 54
1808. Warby, M.K., J.R. Walton and J.R. Whiteman, A finite element model of crack growth in a finite body in the context of mode I linear viscoelastic fracture 97 (1992) 375- 397
1809. Warzee, G., Finite element analysis of transient heat conduction application of the weighted residual process 3 (1974) 255- 268
1810. Wasberg, C.E. and Ø. Andreassen, Pseudospectral methods with open boundary conditions for the study of atmospheric wave phenomena 80 (1990) 459- 465
1811. Wathen, A.J., An analysis of some element-by-element techniques 74 (1989) 271- 287
1812. Watkins, R.I. and A.J. Morris, A multicriteria objective function optimization scheme for laminated composites for use in multilevel structural optimization schemes 60 (1987) 233- 251

1813. Watson, D.F. and G.M. Philip, Comment on "A nonlinear empirical prescription for simultaneously interpolating and smoothing contours over an irregular grid" by F. Duggan 50 (1985) 195- 198
1814. Watson, L. and W.H. Yang, Some numerical methods for limit analysis in continuum mechanics 15 (1978) 353- 364
1815. Watson, L.T. and R.T. Haftka, Modern homotopy methods in optimization 74 (1989) 289- 305
1816. Watts, A.M. and R.H. Frith, Efficient numerical solution of the dynamic equations of cables 25 (1981) 1- 9
1817. Weare, T.J., Finite element or finite difference methods for the two-dimensional shallow water equations? 7 (1976) 351- 357
1818. Webber, J.P.H. and I.B. Stewart, A theoretical solution for the buckling of sandwich panels with laminated face plates using a computer algebra system 92 (1991) 325- 341
1819. Weber, G. and L. Anand, Finite deformation constitutive equations and a time integrated procedure for isotropic hyperelastic-viscoplastic solids 79 (1990) 173- 202
1820. Weideman, J.A.C. and A. Cloot, Spectral methods and mappings for evolution equations on the infinite line 80 (1990) 467- 481
1821. Weissmann, S.L. and R.L. Taylor, Resultant fields for mixed plate bending elements 79 (1990) 321- 355
1822. Weissman, S.L. and R.L. Taylor, Four-node axisymmetric element based upon the Hellinger-Reissner functional 85 (1991) 39- 55
1823. Weissman, S.L. and R.L. Taylor, Mixed formulations for plate bending elements 94 (1992) 391- 427
1824. Weissman, S.L. and R.L. Taylor, A unified approach to mixed finite element methods: Application to in-plane problems 98 (1992) 127- 151
1825. Wellford, Jr., L.C. and J.T. Oden, A note on the accuracy and convergence of finite element approximations of the convection equation 5 (1975) 83- 96
1826. Wellford, Jr., L.C. and J.T. Oden, A theory of discontinuous finite element Galerkin approximations of shock waves in nonlinear elastic solids - Parts 1 and 2 8 (1976) 1- 36
1827. Wellford, Jr., L.C. and S.M. Hamdan, An analysis of an implicit finite element algorithm for geometrically nonlinear problems of structural dynamics. Parts 1 and 2 14 (1978) 377- 399
1828. Wellford Jr., L.C. and M.M. Hafez, A finite element first-order equation formulation for the small-disturbance transonic flow problem 22 (1980) 161- 186
1829. Wellford Jr., L.C. and B. Vahdani, A block iteration scheme for the solution of systems of equations resulting from linear and nonlinear finite element models 26 (1981) 33- 52
1830. Wendland, W.L., Analytical and numerical developments in 3D boundary element methods for elastic problems 91 (1991) 1229-1235
1831. White, R.E., Multisplittings and parallel iterative methods 64 (1987) 567- 577
1832. Wilde, P. and K. Szmidt, Numerical analysis of waves in a semi-infinite layer of fluid 36 (1983) 1- 21
1833. Wilhelmy, V., On the element stiffness factor formulation 11 (1977) 75- 95

1834. Winget, J.M. and T.J.R. Hughes, Solution algorithms for nonlinear transient heat conduction analysis employing element-by-element iterative strategies 52 (1985) 711- 815
1835. Withum, D., K.-P. Holz and U. Meissner, Finite element formulations for tidal wave analysis 17/18 (1979) 699- 716
1836. Witomski, P., The steady state heat equation with mixed nonlinear boundary conditions - an example in crystallography 35 (1982) 47- 66
1837. Wolberg, J.R. and J. Isenberg, A nonlinear least squares search algorithm 5 (1975) 1- 9
1838. Woodford, G., The equation of the curved edge for isoparametric cubic finite elements 16 (1978) 81- 89
1839. Wriggers, P., W. Wagner and C. Miehe, A quadratically convergent procedure for the calculation of stability points in finite element analysis 70 (1988) 329- 347
1840. Wrobel, L.C. and C.A. Brebbia, The dual reciprocity boundary element formulation for diffusion problems 65 (1987) 147- 164
1841. Wu, B.C. and N.J. Altiero, A new numerical method for the analysis of anisotropic thin-plate bending problems 25 (1981) 343- 353
1842. Wu, C.-C., Dual zero energy modes in mixed hybrid elements - definition, analysis and control 81 (1990) 39- 56
1843. Wu, S.T. and J.F. Wang, Numerical tests of a modified full implicit continuous Eulerian (FICE) scheme with projected normal characteristic boundary conditions for MHD flows 64 (1987) 267- 282
1844. Wunderlich, W., H. Cramer and H. Obrecht, Application of ring elements in the nonlinear analysis of shells of revolution under nonaxisymmetric loading 51 (1985) 259- 275
1845. Xanthis, L.S., M.J.M. Bernal and C. Atkinson, The treatment of singularities in the calculation of stress intensity factors using the boundary integral equation method 26 (1981) 285- 304
1846. Xicheng, W. and M. Guixu, A parallel iterative algorithm for structural optimization 96 (1992) 25- 32
1847. Xingjian, Y., A database design technique for finite element analysis 91 (1991) 1357-1364
1848. Yagawa, G. and Y. Takahashi, Some applications of the finite element method to nonlinear fracture mechanics 51 (1985) 51- 69
1849. Yamada, Y., Nonlinear matrices, their implications and applications in inelastic large deformation analysis 33 (1982) 417- 437
1850. Yamamoto, Y., Numerical simulation of hypersonic viscous flow for the design of H-II orbiting plane (HOPE) 89 (1991) 59- 72
1851. Yanenko, N.N., V.M. Kovenya, V.D. Lisejkin, V.M. Fomin and E.V. Vorozhtsov, On some methods for the numerical simulation of flows with complex structure 17/18 (1979) 659- 671
1852. Yanenko, N.N. and V.M. Fomin, Shock-wave propagation in elastoplastic shells, porous and reacting media 52 (1985) 683- 688
1853. Yang, W.H., A method for updating Cholesky factorization of a band matrix 12 (1977) 281- 288
1854. Yang, W.H., On a class of optimization problems for framed structures 15 (1978) 85- 97

1855. Yang, W.H., A practical method for limit torsion problems 19 (1979) 151- 158
1856. Yang, W.H., Minimization approach to limit solutions of plates 28 (1981) 265- 274
1857. Yang, W.H., A variational principle and an algorithm for limit analysis of beams and plates 33 (1982) 575- 582
1858. Yang, Y.-B. and L.-J. Leu, Constitutive laws and force recovery procedures in nonlinear analysis of trusses 92 (1991) 121- 131
1859. Yang, Y., A digital simulation method for flutter analysis 56 (1986) 329- 337
1860. Yates, D.F., T.B. Boffey and A.B. Templeman, A heuristic method for the design of minimum weight trusses using discrete member sizes 37 (1983) 37- 55
1861. Yavin, Y. and A. Venter, Computation of impulse control laws for a nonlinear stochastic oscillator 28 (1981) 129- 143
1862. Yavin, Y., Bang-bang strategies using interrupted observations for steering a random motion of a point 29 (1981) 351- 364
1863. Yavin, Y., Strategies using an observer for steering a random motion of a point in a multitarget environment 39 (1983) 297- 310
1864. Yavin, Y., A stochastic pursuit-evasion differential game on a torus: A numerical solution 60 (1987) 129- 137
1865. Ye, Q. and D.J. Bell, The solution of the transonic equation by optimal control and finite element methods 31 (1982) 69- 78
1866. Ye, Q. and D.J. Bell, A conjugate gradient algorithm applied to plane stress-strain problems 40 (1983) 127- 136
1867. Ying, L.-A. and S.N. Atluri, A hybrid finite element method for Stokes flow: Part II - Stability and convergence studies 36 (1983) 39- 60
1868. Yoshida, Y., T. Nomura and N. Masuda, A formulation and solution procedure for post-buckling of thin-walled structures 32 (1982) 285- 309
1869. Young, L.C., A study of spatial approximations for simulating fluid displacements in petroleum reservoirs 47 (1984) 3- 46
1870. Young, R.C. and C.D. Mote Jr., Solution of mixed boundary value problems with local error bound by the finite element method 2 (1973) 159- 183
1871. Yu, D., Mathematical foundation of adaptive boundary element methods 91 (1991) 1237-1243
1872. Yurtseven, H.O., C. Karaca and A. Ecer, A fast pseudo-time integration scheme for the solution of the steady transonic flow problem 34 (1982) 787- 800
1873. Yuying, H., Z. Weifang and Q. Qinghua, Postbuckling analysis of plates on an elastic foundation by the boundary element method 100 (1992) 315- 323
1874. Zabarar, N. and T. Pervez, Viscous damping approximation of laminated anisotropic composite plates using the finite element method 81 (1990) 291- 316
1875. Zabarar, N., Y. Ruan and O. Richmond, Front tracking thermomechanical model for hypoelastic-viscoplastic behavior in a solidifying body 81 (1990) 333- 364
1876. Zaghoul, N.A., A finite element method for flow separation 41 (1983) 159- 174
1877. Zaghoul, N.A. and M.N. Anwar, Numerical integration of gradually varied flow in trapezoidal channel 88 (1991) 259- 272
1878. Zang, T.A., Spectral methods for simulations of transition and turbulence 80 (1990) 209- 221
1879. Zapryanov, Z. and C. Christov, Numerical study of the viscous flow in oscillatory spherical annuli 29 (1981) 247- 257



1880. Zedan, M.F. and C. Dalton, Higher-order axial singularity distributions for potential flow about bodies of revolution 21 (1980) 295- 314
1881. Zeitoun, D., Chemical and vibrational non-equilibrium flowfields 90 (1991) 687- 692
1882. Zhang, Q. and S. Mukherjee, Second-order design sensitivity analysis for linear elastic problems by the derivative boundary element method 86 (1991) 321- 335
1883. Zhang, W., S. Luo and P. Zhu, Computer simulation of vortex flows around a body of revolution at high angles of attack and low speed 96 (1992) 351- 360
1884. Zhang, Y. and R.S. Harichandran, Implicit subdomain integration for dynamic analysis of large-scale structural systems 81 (1990) 57- 70
1885. Zhang, Z., A note on the hybrid-mixed  $C^0$  curved beam elements 95 (1992) 243- 252
1886. Zhiyun, X., The Hamiltonian system and the spline function 78 (1990) 125- 139
1887. Zhong, Q. and M.D. Olson, Finite element - Algebraic closure analysis of turbulent separated-reattaching flow around a rectangular body 85 (1991) 131- 150
1888. Zhong, W. and C. Qiu, Analysis of symmetric or partially symmetric structures 38 (1983) 1- 18
1889. Zhou, M. and G.I.N. Rozvany, The COC algorithm, Part II: Topological, geometrical and generalized shape optimization 89 (1991) 309- 336
1890. Zhou, X. and F. Zhu, Numerical computation of transonic flows over airfoils and cascades 37 (1983) 277- 288
1891. Zhu, J. and M.A. Leschziner, A local oscillation-damping algorithm for higher-order convection schemes 67 (1988) 335- 366
1892. Zhu, J. and W. Rodi, A low dispersion and bounded convection scheme 92 (1991) 87- 96
1893. Zhu, J., On the higher-order bounded discretization schemes for finite volume computations of incompressible flows 98 (1992) 345- 360
1894. Zhu, P., W. Shou and S. Luo, Nonlinear prediction of subsonic aerodynamic loads on wings and bodies at high angles of attack 26 (1981) 305- 319
1895. Zieliński, A.P., Trefftz method: Elastic and elastoplastic problems 69 (1988) 185- 204
1896. Zienkiewicz, O.C. and J.C. Heinrich, A unified treatment of steady-state shallow-water and two-dimensional Navier-Stokes equations - finite element penalty function approach 17/18 (1979) 673- 698
1897. Zienkiewicz, O.C., J.P. Vilotte, S. Toyoshima and S. Nakazawa, Iterative method for constrained and mixed approximation. An inexpensive improvement of F.E.M. performance 51 (1985) 3- 29
1898. Zienkiewicz, O.C., J. Szmelter and J. Peraire, Compressible and incompressible flow; An algorithm for all seasons 78 (1990) 105- 121
1899. Zienkiewicz, O.C. and J.Z. Zhu, The three R's of engineering analysis and error estimation and adaptivity 82 (1990) 95- 113
1900. Zietsman, J.F.W., The coupled finite element and boundary integral analysis of ocean wave loading: A versatile tool 44 (1984) 153- 176
1901. Zimmermann, H., Aeroservoelasticity 90 (1991) 719- 735
1902. Zimmermann, T., Y. Dubois-Pèlerin and P. Bomme, Object-oriented finite element programming: I. Governing principles 98 (1992) 291- 303
1903. Zografos, A.I., W.A. Martin and J.E. Sunderland, Equations of properties as a function of temperature for seven fluids 61 (1987) 177- 187

## Cumulative Co-author Index of Volumes 1-100

- |   |                  |                                     |                |
|---|------------------|-------------------------------------|----------------|
| Abboud, N.N., see Pinsky, P.M.          | 85 (1991) 311    | Aris, R., see Varma, A.             | 8 (1976) 319   |
| Abd-el-Malek, M.B., see Boutros, Y.Z.   | 65 (1987) 215    | Armstrong, R.C., see Brown, R.A.    | 58 (1986) 201  |
| Abel, J.F., see Haber, R.B.             | 30 (1982) 263    | Arokiaswamy, A., see Holla, V.S.    | 44 (1984) 1    |
| Abel, J.F., see Haber, R.B.             | 30 (1982) 285    | Arora, J.S., see Haug, E.J.         | 15 (1978) 35   |
| Abel, J.F., see Orbison, J.G.           | 33 (1982) 557    | Arora, J.S., see Hsieh, C.C.        | 43 (1984) 195  |
| Abouaf, M., see Marcelin, J.L.          | 56 (1986) 1      | Arora, J.S., see Belegundu, A.D.    | 48 (1985) 81   |
| Achenbach, J.D., see Kitahara, M.       | 64 (1987) 523    | Arora, J.S., see Hsieh, C.C.        | 48 (1985) 171  |
| Adamík, V., see Matejovič, P.           | 70 (1988) 301    | Arora, J.S., see Lim, O.K.          | 57 (1986) 51   |
| Adamík, V., see Matejovič, P.           | 76 (1989) 135    | Arora, J.S., see Tsay, J.J.         | 81 (1990) 183  |
| Agah-Tehrani, A., see Suh, Y.S.         | 93 (1991) 127    | Arora, J.S., see Tsay, J.J.         | 81 (1990) 209  |
| Agrawal, V., see Karamanlidis, D.       | 73 (1989) 133    | Asaro, R.J., see Needleman, A.      | 52 (1985) 689  |
| Ahmad, R., see Stein, E.                | 4 (1974) 81      | Assamoi, L., see Tabarrock, B.      | 61 (1987) 303  |
| Ahmad, R., see Stein, E.                | 10 (1977) 175    | Assanelli, A.P., see Dvorkin, E.N.  | 90 (1991) 829  |
| Akay, H.U., see Reddy, M.P.             | 100 (1992) 169   | Asthana, C.B., see Holla, V.S.      | 44 (1984) 1    |
| Alba, R., see Costa, M.                 | 91 (1991) 1123   | Atkinson, C., see Xanthis, L.S.     | 26 (1981) 285  |
| Ali, A.H.A., see Gardner, L.R.T.        | 92 (1991) 231    | Atluri, S.N., see Bratianu, C.      | 36 (1983) 23   |
| Aliabadi, S.K., see Tezduyar, T.E.      | 98 (1992) 27     | Atluri, S.N., see Ying, L.-A.       | 36 (1983) 39   |
| Altiero, N.J., see Wu, B.C.             | 25 (1981) 343    | Atluri, S.N., see Rubinstein, R.    | 36 (1983) 277  |
| Altiero, N., see Liu, N.                | 84 (1990) 211    | Atluri, S.N., see Rubinstein, R.    | 38 (1983) 63   |
| Alves, J.L.D., see Coutinho, A.L.G.A.   | 84 (1990) 129    | Atluri, S.N., see Reed, K.W.        | 39 (1983) 245  |
| Alziary de Roquefort, T., see Farcy, A. | 80 (1990) 337    | Atluri, S.N., see Reed, K.W.        | 40 (1983) 171  |
| Amundson, N.R., see Varma, A.           | 8 (1976) 319     | Atluri, S.N., see Punch, E.F.       | 47 (1984) 331  |
| Amundson, N.R., see Ballal, G.          | 75 (1989) 467    | Atluri, S.N., see C.Y. Liao         | 91 (1991) 1253 |
| Anand, L., see Weber, G.                | 79 (1990) 173    | Aubry, D., see Adjedj, G.           | 75 (1989) 153  |
| Andersen, C.M., see Noor, A.K.          | 6 (1975) 195     | Auerbach, T., see Lemanska, M.      | 5 (1975) 329   |
| Andersen, C.M., see Noor, A.K.          | 11 (1977) 255    | Auerbach, T., see Mennig, J.        | 39 (1983) 199  |
| Andersen, C.M., see Noor, A.K.          | 20 (1979) 53     | Auweter-Kurtz, M., see Gogel, T.H.  | 89 (1991) 425  |
| Andersen, C.M., see Noor, A.            | 44 (1984) 67     | Avello, A., see García de Jalón, J. | 56 (1986) 309  |
| Andersen, C.M., see Noor, A.K.          | 63 (1987) 37     | Avello, A., see Bayo, E.            | 92 (1991) 377  |
| Anderson, D.V., see Gruber, R.          | 91 (1991) 1135   | Avraam, T., see Kounadis, A.N.      | 95 (1992) 317  |
| Andreassen, Ø., see Wasberg, C.E.       | 80 (1990) 459    | Aziz, T., see Jain, M.K.            | 26 (1981) 129  |
| Andreuzzi, F., see Maier, G.            | 17/18 (1979) 469 | Aziz, T., see Jain, M.K.            | 39 (1983) 83   |
| Angelopoulos, T., see Argyris, J.H.     | 2 (1973) 203     | Babuška, I., see Arnold, D.N.       | 45 (1984) 57   |
| Angelopoulos, T., see Argyris, J.H.     | 3 (1974) 135     | Babuška, I., see Oh, H.-S.          | 97 (1992) 211  |
| Angelopoulos, T., see Argyris, J.H.     | 4 (1974) 219     | Bachrach, W.E., see Belytschko, T.  | 54 (1986) 279  |
| Anwar, M.N., see Zaghoul, N.A.          | 88 (1991) 259    | Bachmann, P.L., see Shephard, M.S.  | 55 (1986) 161  |
| Appert, K., see Succi, S.               | 75 (1989) 543    | Bachmann, P.L., see Shephard, M.S.  | 82 (1990) 257  |
| Arbogast, T., see Douglas, Jr., J.      | 87 (1991) 157    |                                     |                |

- Baenziger, G., see Arora, J.S. 54 (1986) 303
- Baker, A.J., see Soliman, M.O. 28 (1981) 81
- Baker, G., see Khennane, A. 100 (1992) 207
- Baker, G., see Khennane, A. 100 (1992) 225
- Balestra, M., see Hughes, T.J.R. 59 (1986) 85
- Balmer, H., see Argyris, J.H. 17/18 (1979) 1
- Balmer, H., see Argyris, J.H. 22 (1980) 361
- Balmer, H., see Argyris, J. 65 (1987) 267
- Balmer, H., see Argyris, J. 71 (1988) 341
- Balmer, H., see Argyris, J. 85 (1991) 1
- Banan, M.R., see Farshad, M. 73 (1989) 111
- Banik, N.C., see Gupta, R.S. 67 (1988) 211
- Bard, J., see Cebeci, T. 2 (1973) 323
- Bartholomew, P., see Kelly, D.W. 12 (1977) 219
- Barturen, O.M., see Eterovic, J.E. 53 (1985) 91
- Barut, A., see Oral, S. 93 (1991) 415
- Basu, P.K., see Akhtar, M.N. 85 (1991) 219
- Bathe, K.-J., see Key, S.W. 17/18 (1979) 597
- Bathe, K.-J., see Brezzi, F. 82 (1990) 27
- Bathe, K.-J., see Eterovic, A.L. 93 (1991) 31
- Batterman, S.C., see Lehner, J.R. 2 (1973) 349
- Bauer, J., see Gutkowski, W. 51 (1985) 71
- Bauer, W., see Balasubramanian, B. 89 (1991) 337
- Bayliss, A., see Belytschko, T. 81 (1990) 71
- Bážant, Z.P., see Cedolin, L. 24 (1980) 305
- Bazhlekoy, I.B., see Shopov, P.J. 91 (1991) 1157
- Beagles, A.E., see Hlaváček, I. 94 (1992) 93
- Beauchamp, C., see Arminjon, P. 19 (1979) 351
- Beauchamp, C., see Arminjon, P. 25 (1981) 65
- Becker, E.B., see Biffle, J.H. 6 (1975) 101
- Becker, E.B., see Gartling, D.K. 8 (1976) 51
- Becker, E.B., see Gartling, D.K. 8 (1976) 127
- Becker, E.B., see Hibbitt, H.D. 17/18 (1979) 203
- Becker, E.B., see Taylor, L.M. 41 (1983) 251
- Beckers, P., see Nyssen, C. 44 (1984) 131
- Bédard, C., see Lacombe, C. 68 (1988) 177
- Behr, M., see Tezduyar, T.E. 94 (1992) 339
- Behr, M., see Tezduyar, T.E. 94 (1992) 353
- Behr, M., see Tezduyar, T.E. 99 (1992) 27
- Bell, D.J., see Ye, Q. 31 (1982) 69
- Bell, D.J., see Ye, Q. 40 (1983) 127
- Bell, J.B., see Shubin, G.R. 47 (1984) 47
- Bellet, D., see Theodorou, G. 54 (1986) 111
- Belytschko, T., see Stolarski, H. 21 (1980) 217
- Belytschko, T., see Stolarski, H. 41 (1983) 279
- Belytschko, T., see Liu, W.K. 44 (1984) 177
- Belytschko, T., see Donea, J. 48 (1985) 25
- Belytschko, T., see Liu, W.K. 48 (1985) 245
- Belytschko, T., see Stolarski, H. 50 (1985) 121
- Belytschko, T., see Liu, W.K. 55 (1986) 259
- Belytschko, T., see Liu, W.K. 56 (1986) 61
- Belytschko, T., see Liu, W.K. 58 (1986) 227
- Belytschko, T., see Stolarski, H. 58 (1986) 249
- Belytschko, T., see Stolarski, H. 58 (1986) 265
- Belytschko, T., see Stolarski, H. 60 (1987) 195
- Belytschko, T., see Smolinski, P. 65 (1987) 115
- Belytschko, T., see Liu, W.K. 67 (1988) 27
- Belytschko, T., see Liu, W.K. 68 (1988) 259
- Belytschko, T., see Liu, W.K. 71 (1988) 241
- Belytschko, T., see Fish, J. 78 (1990) 181
- Belytschko, T., see Lu, Y.Y. 85 (1991) 21
- Belytschko, T., see Besterfield, G.H. 86 (1991) 297
- Belytschko, T., see Liu, W.K. 93 (1991) 189
- Benardout, D., see Kirsch, U. 22 (1980) 347
- Benaroya, H., see Rehak, M.L. 61 (1987) 61
- Bencze, D.P., see Chuy, W.J. 64 (1987) 21
- Bendito, E., see Navarrina, F. 75 (1989) 267
- Bendsøe, M.P., see Olhoff, N. 89 (1991) 259
- Benek, J.A., see Steger, J.L. 64 (1987) 301
- Benson, D.J., see Hallquist, J.O. 51 (1985) 107
- Benson, M.G., see Bellamy-Knight, P.G. 76 (1989) 171
- Benveniste, Y., see Aboudi, J. 6 (1975) 319
- Benzley, S.E., see Christiansen, H.N. 34 (1982) 1037
- Bergan, P.G., see Horrigmoe, G. 7 (1976) 201
- Bergan, P.G., see Horrigmoe, G. 16 (1978) 11
- Bergan, P.G., see Mollestad, E. 34 (1982) 881
- Bergan, P.G., see Felippa, C.A. 61 (1987) 129
- Bergeles, G., see Barba, A. 44 (1984) 49
- Beris, A.N., see Brown, R.A. 58 (1986) 201
- Beris, A.N., see Liu, B. 76 (1989) 179
- Beris, A.N., see Pilitsis, S. 98 (1992) 307
- Bern, A., see Chenot, J.L. 92 (1991) 245
- Bernal, M.J.M., see Xanthis, L.S. 26 (1981) 285
- Bernal, M.J.M., see Atkinson, C. 29 (1981) 35
- Bernardi, C., see Bègue, C. 75 (1989) 109
- Bert, C.W., see Elishakoff, I. 67 (1988) 297
- Bertin, J.J., see Cline, D.D. 75 (1989) 283
- Bertrand, F., see Soulaïmani, A. 62 (1987) 47
- Bertrand, F.H., see Hurez, P. 86 (1991) 87
- Bertrand-Corsini, C., see Chenot, J.L. 92 (1991) 245
- Beskos, D.E., see Kamdar, D.S. 19 (1979) 205
- Beskos, D.E., see Manolis, G.D. 21 (1980) 337

- Beskos, D.E., see Manolis, G.D. 36 (1983) 291
- Beskos, D.E., see Karabalas, D.L. 56 (1986) 91
- Beskos, D.E., see Providakis, C.P. 74 (1989) 231
- Beskos, D.E., see Providakis, C.P. 92 (1991) 55
- Besterfield, G., see Liu, W.K. 67 (1988) 27
- Bhaskar, A., see Dumir, P.C. 67 (1988) 111
- Bhat, M.V., see Habashi, W.G. 87 (1991) 253
- Bhiladvala, R.B., see Chen, C.J. 75 (1989) 61
- Bichat, B., see Argyris, J.H. 3 (1974) 135
- Bichat, B., see Argyris, J.H. 4 (1974) 219
- Biggins, M.J., see Evans, D.J. 27 (1981) 63
- Bilger, R.W., see Tanner, R.I. 6 (1975) 155
- Billardon, R., see Benallal, A. 92 (1991) 141
- Billet, J., see Soubbaramayer 24 (1980) 165
- Bindeman, L.P., see Belytschko, T. 88 (1991) 311
- Bischoff, D., see Stein, E. 52 (1985) 873
- Bischoff, D., see Plank, L. 82 (1990) 223
- Biswas, R., see Benantar, M. 82 (1990) 73
- Boffey, T.B., see Yates, D.F. 37 (1983) 37
- Bomme, P., see Zimmermann, T. 98 (1992) 291
- Bomme, P., see Dubois-Pélerin, Y. 98 (1992) 361
- Boni, B., see Argyris, J.H. 35 (1982) 221
- Bontoux, P., see Chaouche, A. 80 (1990) 237
- Borkowski, A., see Atkočiūnas, J. 28 (1981) 365
- Bradshaw, P., see Cebeci, T. 22 (1980) 213
- Brand, G., see Stein, E. 52 (1985) 873
- Brauchli, H., see Haas, R. 89 (1991) 543
- Brebbia, C.A., see Wrobel, L.C. 65 (1987) 147
- Brebbia, C.A., see Takahashi, S. 93 (1991) 151
- Brekelmans, W.A.M., see Schreurs, P.J.G. 58 (1986) 19
- Brezzi, F., see Hughes, T.J.R. 72 (1989) 105
- Briley, W.R., see Kreskovsky, J.P. 11 (1977) 39
- Bristeau, M.-O., see Brezzi, F. 96 (1992) 117
- Brønlund, O.E., see Argyris, J.H. 5 (1975) 97
- Brown, D.B., see Langer, F.D. 62 (1987) 255
- Brown, R.C., see Eraslan, A.N. 64 (1987) 61
- Bucalem, M.L., see Bathe, K.-J. 82 (1990) 5
- Bui, T.D., see Li, Z.-C. 97 (1992) 291
- Burton, W.C., see Noor, A.K. 82 (1990) 341
- Caddemi, S., see Rencontre, L.J. 96 (1992) 201
- Camarero, R., see Pelletier, D. 75 (1989) 343
- Camberos, J., see Löhner, R. 95 (1992) 343
- Camin, R.A., see Noor, A.K. 9 (1976) 317
- Canuto, C., see Battarra, V. 48 (1985) 329
- Canuto, C., see Brezzi, F. 73 (1989) 317
- Cao, Z.-Y., see Li, Z.-C. 36 (1983) 61
- Capurso, M., see Cannarozzi, A.A. 16 (1978) 47
- Cardona, A., see Idelsohn, S.R. 49 (1985) 253
- Cardoso, J.E.B., see Tsay, J.J. 81 (1990) 209
- Carey, G.F., see Sepehmoori, K. 27 (1981) 45
- Carey, G.F., see Utku, M. 30 (1982) 103
- Carey, G.F., see Utku, M. 41 (1983) 11
- Carey, G.F., see Axelsson, O. 50 (1985) 217
- Carey, G.F., see Barragy, E. 70 (1988) 321
- Carey, G.F., see Wang, K.C. 82 (1990) 365
- Carey, G.F., see Barragy, E. 93 (1991) 97
- Carini, A., see Maier, G. 92 (1991) 193
- Carnoy, E., see Hughes, T.J.R. 39 (1983) 69
- Carpenter, N., see Stolarski, H. 50 (1985) 121
- Carpenter, N., see Belytschko, T. 51 (1985) 221
- Casteleiro, M., see Navarrina, F. 75 (1989) 267
- Cebeci, T., see Mena, A.L. 35 (1982) 67
- Celia, M., see Hayes, L. 27 (1981) 265
- Celia, M.A., see Bouloutas, E.T. 92 (1991) 289
- Cervera, M., see Codina, R. 94 (1992) 239
- Chan, A.S.L., see Kunar, R.R. 7 (1976) 331
- Chan, M.Y.T., see Ng, S.S. 11 (1977) 137
- Chan, P.S., see Radok, R. 54 (1986) 245
- Chang, C.L., see Jiang, B.N. 78 (1990) 297
- Chang, H., see Liu, W.K. 58 (1986) 227
- Chang, H., see Liu, W.K. 68 (1988) 259
- Chang, K.C., see Cebeci, T. 22 (1980) 213
- Chang, T.Y., see Saleeb, A.F. 60 (1987) 95
- Chang, W.-J., see Jang, J.-Y. 68 (1988) 333
- Chapuis, O., see Leroy, Y.M. 90 (1991) 969
- Chen, C.-K., see Lee, S.-C. 50 (1985) 147
- Chen, C.-K., see Chen, H.-T. 63 (1987) 83
- Chen, E.-P., see Taylor, L.M. 55 (1986) 301
- Chen, H.R., see Wang, J.H. 79 (1990) 203
- Chen, J.-S., see Liu, W.K. 68 (1988) 259
- Chen, J.-S., see Liu, W.K. 71 (1988) 241
- Chen, J.-S., see Liu, W.K. 93 (1991) 189
- Chen, J.-T., see Wang, W.-C. 73 (1989) 153
- Chen, L., see Kamel, H.A. 89 (1991) 485
- Chen, S.-F., see Guo, Y.L. 93 (1991) 319
- Chen, T.-M., see Chen, H.-T. 63 (1987) 83
- Chen, Y.-S., see Kim, S.-W. 66 (1988) 45
- Chenot, J.L., see Marcelin, J.L. 56 (1986) 1
- Cheung, Y.K., see Carey, G.F. 22 (1980) 121
- Chiang, H.-Y., see Belytschko, T. 96 (1992) 93
- Chin, S.B., see Bradley, D. 69 (1988) 133
- Chiou, J.C., see Downer, J.D. 96 (1992) 373
- Chitnuyanondh, L., see Murray, D.W. 23 (1980) 35

- Chow, C.L., see Sze, K.Y. 99 (1992) 1  
 Chow, S.S., see Carey, G.F. 50 (1985) 107  
 Christensen, J., see Stavitsky, D. 26 (1981) 265  
 Christov, C., see Zapryanov, Z. 29 (1981) 247  
 Chrysakis, A.C., see Theocaris, P.S. 24 (1980) 1  
 Chung, D.-T., see Nemat-Nasser, S. 95 (1992) 205  
 Chung, K.Y., see Kikichi, N. 57 (1986) 67  
 Chung, K., see Suh, Y.S. 93 (1991) 127  
 Ciarlet, P.G., see Blanchard, D. 37 (1983) 79  
 Cimento, A.P., see Bathe, K.J. 22 (1980) 59  
 Cinquini, C., see Lamblin, D. 13 (1978) 233  
 Cinquini, C., see Cantù, E. 20 (1979) 257  
 Cleghorn, W.L., see Rajpal, S.D.O. 62 (1987) 245  
 Clifton, R.J., see Ranganath, S. 1 (1972) 173  
 Clifton, R.J., see Guldenpfennig, J. 10 (1977) 141  
 Cloot, A., see Weideman, J.A.C. 80 (1990) 467  
 Cockburn, B., see Bamberger, A. 75 (1989) 11  
 Cohen, G., see Chavent, G. 47 (1984) 93  
 Cohn, M.Z., see Franchi, A. 21 (1980) 271  
 Collier, G., see Sami, S. 60 (1987) 303  
 Collins, D., see Behie, A. 42 (1984) 287  
 Connolly, D., see Heinrich, J.C. 100 (1992) 31  
 Cooper, W.A., see Gruber, R. 91 (1991) 1135  
 Coppoletta, G., see Bernardi, C. 80 (1990) 229  
 Coron, F., see Cardot, B. 87 (1991) 103  
 Corradi, L., see Grierson, D.E. 17/18 (1979) 497  
 Costa, M., see Alba, R. 91 (1991) 1203  
 Côté, D., see Fortin, A. 88 (1991) 97  
 Cramer, H., see Wunderlich, W. 51 (1985) 259  
 Crescitelli, S., see Di Blasi, C. 75 (1989) 481  
 Crescitelli, S., see Di Blasi, C. 90 (1991) 643  
 Crivelli, A.L., see Storti, M. 66 (1988) 65  
 Crivelli, L., see Farhat, C. 72 (1989) 153  
 Cronin, K.D., see Lyell, M.J. 95 (1992) 71  
 Cuadrado, J., see Bayo, E. 92 (1991) 377  
 Curnier, A., see Hughes, T.J.R. 8 (1976) 249  
 Curnier, A., see Alart, P. 92 (1991) 353  
 Curr, R.M., see Caretto, L.S. 1 (1972) 39  
 Cuvelier, C., see Schulkes, R.M.S.M. 92 (1991) 97  
 Čyras, A., see Kacianauskas, R. 67 (1988) 131  
 D'Asdia, P., see Andreus, U. 42 (1984) 19  
 d'Hennezel, F., see Bourquin, F. 97 (1992) 49  
 Da Silva, V.D., see Argyris, J. 88 (1991) 135  
 Da Silva, V.D., see Argyris, J. 98 (1992) 159  
 Dafalias, Y.F., see Loret, B. 98 (1992) 399  
 Dai, E., see Li, Z.-C. 31 (1982) 179  
 Dalton, C., see Zedan, M.F. 21 (1980) 295  
 Dalton, C., see Pinebrook, W.E. 39 (1983) 179  
 Damjanic, F., see Owen, D.J.R. 41 (1983) 323  
 Darlow, B.L., see Douglas, Jr., J. 47 (1984) 119  
 Darlow, B.L., see Douglas, Jr., J. 47 (1984) 131  
 Das, P.C., see Saha, S. 92 (1991) 343  
 Das, S., see Mitra, A.K. 69 (1988) 205  
 Dattaguru, B., see Naganarayana, B.P. 97 (1992) 355  
 Dawe, D.J., see Peshkam, V. 77 (1989) 227  
 Dawson, P.R., see Eggert, G.M. 70 (1988) 165  
 De Koning, A.U., see Besseling, J.F. 17/18 (1979) 131  
 Debit, N., see Bègue, C. 75 (1989) 109  
 DeDonato, O., see Grierson, D.E. 17/18 (1979) 497  
 Dehmel, W., see Rothert, H. 64 (1987) 429  
 Delves, L.M., see Hendry, J.A. 35 (1982) 271  
 Delves, L.M., see Kermode, M. 50 (1985) 205  
 Demirdzic, I., see Barba, A. 44 (1984) 49  
 Demkowicz, L., see Oden, J.T. 77 (1989) 113  
 Demkowicz, L., see Rachowicz, W. 77 (1989) 181  
 Demkowicz, L., see Oden, J.T. 82 (1990) 183  
 Demkowicz, L., see Oden, J.T. 89 (1991) 11  
 Denman, E.D., see Huan, S.-L. 41 (1983) 123  
 DeRuntz, J.A., see Felippa, C.A. 44 (1984) 297  
 Dervieux, A., see Billey, V. 75 (1989) 409  
 Desai, R., see Haftka, R.T. 60 (1987) 289  
 Désidéri, J.-A., see Guillard, H. 80 (1990) 305  
 Destuynder, P., see Ciarlet, P.G. 17/18 (1979) 227  
 Destuynder, P., see Davet, J.L. 59 (1986) 129  
 Devasia, K.J., see Hussaini, M.Y. 13 (1978) 119  
 Deville, M.O., see Francken, P. 80 (1990) 295  
 Devloo, P., see Demkowicz, L. 53 (1985) 67  
 Devloo, P., see Strouboulis, T. 59 (1986) 235  
 Devloo, P., see Oden, J.T. 59 (1986) 327  
 Dey, S.S., see Singh, J.P. 97 (1992) 1  
 Dhatt, G., see Soulaïmani, A. 62 (1987) 47  
 Dhatt, G., see Soulaïmani, A. 86 (1991) 265  
 Diligenti, M., see Maier, G. 92 (1991) 193  
 Dimaggio, F.L., see Rehak, M.L. 61 (1987) 61  
 Dinh, G.V., see Atamian, C. 91 (1991) 1271  
 Dinh, Q.V., see Glowinski, R. 40 (1983) 27  
 Dinkler, D., see Kröplin, B.-H. 32 (1982) 365  
 Dinkler, D., see Kröplin, B. 52 (1985) 885  
 Dittrich, K., see Siekmann, J. 10 (1977) 291  
 Doan, D.B., see Cardona, A. 89 (1991) 395



- Doltsinis, J.S., see Balmer, H. 3 (1974) 87  
 Doltsinis, J.S., see Balmer, H. 13 (1978) 363  
 Doltsinis, J.S., see Argyris, J.H. 14 (1978) 259  
 Doltsinis, J.S., see Argyris, J.H. 17/18 (1979) 1  
 Doltsinis, J.S., see Argyris, J.H. 17/18 (1979) 341  
 Doltsinis, J.S., see Argyris, J.H. 20 (1979) 213  
 Doltsinis, J.S., see Argyris, J.H. 21 (1980) 91  
 Doltsinis, J.S., see Argyris, J.H. 25 (1981) 195  
 Doltsinis, J.S., see Argyris, J.H. 32 (1982) 3  
 Doltsinis, J.S., see Argyris, J.H. 45 (1984) 3  
 Doltsinis, J.S., see Argyris, J.H. 46 (1984) 83  
 Doltsinis, J.S., see Argyris, J.H. 51 (1985) 289  
 Doltsinis, I.S., see Argyris, J. 65 (1987) 267  
 Doltsinis, I.S., see Argyris, J. 71 (1988) 341  
 Doltsinis, I.S., see Argyris, J. 73 (1989) 1  
 Doltsinis, I.S., see Argyris, J. 81 (1990) 257  
 Doltsinis, I.S., see Argyris, J. 85 (1991) 1  
 Doltsinis, I.S., see Argyris, J. 88 (1991) 135  
 Doltsinis, I.S., see Argyris, J. 89 (1991) 85  
 Doltsinis, I.S., see Argyris, J. 98 (1992) 159  
 Donea, J., see Selmin, V. 52 (1985) 817  
 Dost, S., see Tabarrok, B. 22 (1980) 279  
 Dow, M., see Rozvany, G.I.N. 31 (1982) 91  
 Dracopoulos, M.C., see Papadarakakis, M. 88 (1991) 275  
 Drašković, Z., see Berković, M. 91 (1991) 1339  
 Dubois-Pelerin, Y., see Farhat, C. 85 (1991) 349  
 Dubois-Pelerin, Y., see Zimmermann, T. 98 (1992) 291  
 Dulikravich, G.S., see Kennon, S.R. 47 (1984) 357  
 Dulikravich, G.S., see Carcaillet, R. 57 (1986) 279  
 Dulikravich, G.S., see Hayes, L.J. 59 (1986) 141  
 Dulikravich, G.S., see Huang, C.-Y. 59 (1986) 155  
 Dulikravich, G.S., see Huang, C.Y. 63 (1987) 15  
 Dulikravich, G.S., see Lee, S. 86 (1991) 245  
 Dunbar, W.S., see Nour-Ohmid, B. 88 (1991) 75  
 Dunne, P.C., see Argyris, J.H. 2 (1973) 203  
 Dunne, P.C., see Argyris, J.H. 4 (1974) 219  
 Dunne, P.C., see Argyris, J.H. 10 (1977) 105  
 Dunne, P.C., see Argyris, J.H. 10 (1977) 371  
 Dunne, P.C., see Argyris, J.H. 11 (1977) 97  
 Dunne, P.C., see Argyris, J.H. 13 (1978) 245  
 Dunne, P.C., see Argyris, J.H. 14 (1978) 401  
 Dunne, P.C., see Argyris, J.H. 15 (1978) 99  
 Dunne, P.C., see Argyris, J.H. 15 (1978) 389  
 Dunne, P.C., see Argyris, J.H. 16 (1978) 369  
 Dunne, P.C., see Argyris, J.H. 17/18 (1979) 1  
 Dunne, P.C., see Argyris, J.H. 24 (1980) 215  
 Dupont, T.F., see Cowsar, L.C. 82 (1990) 205  
 Duran, M., see Conca, C. 100 (1992) 295  
 Durany, J., see Bermúdez, A. 68 (1988) 55  
 Durany, J., see Bermúdez, A. 75 (1989) 457  
 Dutra do Carmo, E.G., see Galeão, A.C. 68 (1988) 83  
 Dutra do Carmo, E.G., see Franca, L.P. 74 (1989) 41  
 Ebecken, N.F.F., see Coutinho, A.L.G.A. 84 (1990) 129  
 Ecer, A., see Yurtseven, H.O. 34 (1982) 787  
 Eddingfield, D.L., see Sami, S. 60 (1987) 303  
 Eisenberger, M., see Adin, M.A. 49 (1985) 319  
 El-Awadi, I.A., see Boutros, Y.Z. 81 (1990) 173  
 Elghobashi, S.E., see Megahed, I.E.A. 26 (1981) 225  
 Elishakoff, I., see Rehak, M.L. 61 (1987) 61  
 Elishakoff, I., see Givoli, D. 96 (1992) 45  
 Engelman, M.S., see Givler, R.C. 87 (1991) 175  
 Engelmann, B.E., see Spilker, R.L. 56 (1986) 339  
 Engelmann, B.E., see Belytschko, T. 70 (1988) 59  
 Engersbach, N.H., see Gruver, W.A. 11 (1977) 165  
 Eriksson, L.-E., see Smith, R.E. 64 (1987) 285  
 Ernst, L.J., see Besseling, J.F. 17/18 (1979) 131  
 Eskin, G., see Bogomolnii, A. 15 (1978) 149  
 Esposito, V.J., see Porsching, T.A. 8 (1976) 357  
 Ettles, C.M.M., see Holmes, A.G. 5 (1975) 309  
 Evans, D.J., see Lipitakis, E.A. 43 (1984) 1  
 Evans, D.J., see Abdullah, A.R. 55 (1986) 221  
 Évariste, C., see Charbonneau, G. 98 (1992) 23  
 Ewing, R.E., see Espedal, M.S. 64 (1987) 113  
 Ewing, R.E., see Bramble, J.H. 67 (1988) 149  
 Fairweather, G., see Davis, M. 28 (1981) 179  
 Fairweather, G., see Kondapalli, P.S. 96 (1992) 255  
 Falques, A., see Mercader, I. 91 (1991) 1245  
 Falqués, A., see Iranzo, V. 98 (1992) 105  
 Farshad, M., see Tabarrok, B. 70 (1988) 275  
 Faust, G., see Argyris, J.H. 8 (1976) 215  
 Faust, G., see Argyris, J. 91 (1991) 997  
 Fayolle, S., see Bernardou, M. 74 (1989) 307

- Felicelli, S., see Heinrich, J.C. 89 (1991) 435  
 Felippa, C.A., see Bergan, P.G. 50 (1985) 25  
 Felippa, C.A., see Militello, C. 93 (1991) 217  
 Fenton, R.G., see Tabarrok, T. 63 (1987) 1  
 Ferencz, R.M., see Hughes, T.J.R. 61 (1987) 215  
 Fernández, J., see Bermudez, A. 54 (1986) 67  
 Ferrari, J.O., see Cohen, J. 5 (1975) 53  
 Fezoui, L., see Billey, V. 75 (1989) 409  
 Figueiras, J.A., see Owen, D.J.R. 41 (1983) 323  
 Fischer, H., see Argyris, J.H. 51 (1985) 289  
 Fish, J., see Belytschko, T. 70 (1988) 59  
 Fish, J., see Belytschko, T. 76 (1989) 67  
 Fish, J., see Belytschko, T. 81 (1990) 71  
 Flags, D.L., see Park, K.C. 42 (1984) 37  
 Flags, D.L., see Park, K.C. 46 (1984) 65  
 Flags, D.L., see Park, K.C. 48 (1985) 203  
 Flaherty, J.E., see Adjerid, S. 55 (1986) 3  
 Flaherty, J., see Benantar, M. 82 (1990) 73  
 Flanagan, D.P., see Belytschko, T. 33 (1982) 669  
 Fleury, C., see Braibant, V. 44 (1984) 247  
 Fleury, C., see Braibant, V. 53 (1985) 119  
 Fleury, C., see Shyy, Y.K. 71 (1988) 99  
 Florian, P., see Gambolati, G. 94 (1992) 13  
 Flück, M., see Descloux, J. 77 (1989) 215  
 Flüh, H.H., see Argyris, J.H. 38 (1983) 347  
 Fomin, V.M., see Yanenko, N.N. 17/18 (1979) 659  
 Fomin, V.M., see Yanenko, N.N. 52 (1985) 683  
 Fomin, W.M., see Kovaljov, O.B. 22 (1980) 259  
 Foroozesh, M., see Voyiadjis, G.Z. 86 (1991) 337  
 Forsyth, Jr., P., see Behie, A. 42 (1984) 287  
 Fortin, M., see Fortin, A. 58 (1986) 337  
 Fortin, M., see Soulaïmani, A. 62 (1987) 47  
 Fortin, M., see Aboulaich, R. 75 (1989) 317  
 Fortin, M., see Robichaud, M.P. 75 (1989) 359  
 Fortin, M., see Soulaïmani, A. 86 (1991) 265  
 Fox, D.D., see Simo, J.C. 72 (1989) 267  
 Fox, D.D., see Simo, J.C. 73 (1989) 53  
 Fox, D.D., see Simo, J.C. 79 (1990) 21  
 Fox, D.D., see Simo, J.C. 81 (1990) 91  
 Fox, D.D., see Simo, J.C. 95 (1992) 277  
 Franca, L.P., see Hughes, T.J.R. 54 (1986) 223  
 Franca, L.P., see Hughes, T.J.R. 59 (1986) 85  
 Franca, L.P., see Hughes, T.J.R. 63 (1987) 97  
 Franca, L.P., see Loula, A.F.D. 63 (1987) 115  
 Franca, L.P., see Loula, A.F.D. 63 (1987) 133  
 Franca, L.P., see Loula, A.F.D. 63 (1987) 281  
 Franca, L.P., see Hughes, T.J.R. 65 (1987) 85  
 Franca, L.P., see Hughes, T.J.R. 67 (1988) 223  
 Franca, L.P., see Loula, A.F.D. 72 (1989) 201  
 Franca, L.P., see Hughes, T.J.R. 73 (1989) 173  
 Franca, L.P., see Brezzi, F. 96 (1992) 117  
 Franchi, A., see De Donato, O. 2 (1973) 107  
 Franchi, A., see Grierson, D.E. 17/18 (1979) 497  
 Frémond, M., see Bossavit, A. 8 (1976) 153  
 Frey, F., see Jaamei, S. 75 (1989) 251  
 Frey, S.L., see Franca, L.P. 95 (1992) 253  
 Frey, S.L., see Franca, L.P. 99 (1992) 209  
 Friedman, M.B., see Luo, J.-C. 84 (1990) 193  
 Frith, R.H., see Watts, A.M. 25 (1981) 1  
 Friz, H., see Argyris, J. 73 (1989) 1  
 Friz, H., see Argyris, J. 81 (1990) 257  
 Friz, H., see Argyris, J. 89 (1991) 85  
 Frosio, R., see Descloux, J. 77 (1989) 215  
 Fu, G.Y., see Gruber, R. 91 (1991) 1135  
 Fujikubo, M., see Ueda, Y. 51 (1985) 157  
 Fujikubo, M., see Ueda, Y. 92 (1991) 33  
 Fujikubo, M., see Ueda, Y. 94 (1992) 317  
 Funaro, D., see Couland, O. 80 (1990) 451  
 Gabovich, M.D., see Imshennik, V.S. 9 (1976) 1  
 Galeão, A.C., see Dutra do Carmo, E.G. 88 (1991) 1  
 Gallagher, R.H., see Bhashyam, G.R. 40 (1983) 309  
 Gallagher, R.H., see Murthy, S.S. 54 (1986) 197  
 Gallouët, T., see Eymard, R. 74 (1989) 83  
 Gambolati, G., see Perdon, A.M. 56 (1986) 251  
 Gandillon, J.-P., see Auerbach, T. 2 (1973) 133  
 Gane, C.R., see Evans, D.J. 31 (1982) 281  
 Ganjoo, D.K., see Tezduyar, T.E. 59 (1986) 49  
 Ganoulis, J., see Latinopoulos, P. 20 (1979) 279  
 Garcia de Jalón, J., see Bayo, E. 71 (1988) 183  
 García de Jalón, J., see Bayo, E. 92 (1991) 377  
 Gardner, G.A., see Gardner, L.R.T. 92 (1991) 231  
 Gardner, G.A., see Ali, A.H.A. 100 (1992) 325  
 Gardner, L.R.T., see Ali, A.H.A. 100 (1992) 325  
 Garg, V.K., see Gupta, S.C. 27 (1981) 363  
 Garg, V.K., see Gupta, S.C. 28 (1981) 27  
 Garg, V.K., see Gupta, S.C. 28 (1981) 207  
 Garon, A., see Pelletier, D. 75 (1989) 343  
 Gartling, D.K., see Nickell, R.E. 17/18 (1979) 561  
 Gartling, D.K., see Givler, R.C. 87 (1991) 175  
 Gastine, J.L., see Ladeveze, P. 94 (1992) 303  
 Gellert, M., see Laursen, M.E. 14 (1978) 125

- Gellert, M., see Ginsburg, S. 23 (1980) 111  
 Gellert, M., see Harbord, R. 83 (1990) 201  
 Gellin, S., see Batt, J.R. 53 (1985) 105  
 Genalo, L.J., see Pierson, B.L. 10 (1977) 45  
 Genna, F., see Franchi, A. 60 (1987) 317  
 Genna, F., see Franchi, A. 90 (1991) 921  
 Gentry, R.A., see Stein, L.R. 11 (1977) 57  
 Georgakis, C., see Varma, A. 8 (1976) 319  
 George, J.H., see Djomehri, M.J. 71 (1988) 125  
 Georges, M.K., see Shephard, M.S. 82 (1990) 257  
 Geradin, M., see Sander, G. 17/18 (1979) 315  
 Geradin, M., see Cardona, A. 89 (1991) 395  
 Geradin, M., see Farhat, C. 97 (1992) 333  
 Gérardin, M., see Cardona, A. 100 (1992) 1  
 Gerrard, J.H., see Bellamy-Knight, P.G. 76 (1989) 171  
 Gerrekens, P., see Hogge, M. 33 (1982) 609  
 Ghionis, P., see Papadrakakis, M. 59 (1986) 11  
 Giacomini, S., see Maier, G. 19 (1979) 21  
 Giannakopoulos, A.E., see Tsamaphyros, G. 49 (1985) 331  
 Giannessi, F., see Maier, G. 17/18 (1979) 469  
 Girault, V., see Bernardi, C. 80 (1990) 229  
 Giuliani, S., see Donea, J. 30 (1982) 53  
 Giuliani, S., see Donea, J. 33 (1982) 689  
 Giuliani, S., see Donea, J. 45 (1984) 123  
 Gladwell, I., see Bellamy-Knight, P.G. 76 (1989) 171  
 Glotz, G., see Schönauer, W. 28 (1981) 327  
 Glowinski, R., see Ciarlet, P.G. 5 (1979) 277  
 Glowinski, R., see Bristeau, M.O. 17/18 (1979) 619  
 Glowinski, R., see Bristeau, M.O. 51 (1985) 363  
 Glowinski, R., see Ballal, G. 75 (1989) 467  
 Glowinski, R., see Dean, E.J. 87 (1991) 117  
 Glowinski, R., see Atamian, C. 91 (1991) 1271  
 Gluck, J., see Kalev, I. 10 (1977) 63  
 Goble, B., see Fung, K.-Y. 66 (1988) 1  
 Goldberg, M., see Abarbanel, S. 8 (1976) 331  
 Goldman, Y., see Bamberger, A. 75 (1989) 11  
 Götz, T.M., see Gogel, T.H. 89 (1991) 425  
 González Nicieza, C., see Alvarez Vigil, A.E. 99 (1992) 147  
 Goodin, W.R., see Liu, C.Y. 9 (1976) 281  
 Goodrich, W.D., see Ganjoo, D.K. 75 (1989) 515  
 Gosman, A.D., see Barba, A. 44 (1984) 49  
 Gosman, A.D., see Ahmadi-Befrui, B. 79 (1990) 249  
 Gottlieb, D., see Don, W.-S. 80 (1990) 39  
 Goudreau, G.L., see Hallquist, J.O. 51 (1985) 107  
 Gould, P.L., see Lin, J.S. 65 (1987) 127  
 Gourdin Serveniére, A., see Adam, J.C. 22 (1980) 327  
 Gourgeon, H., see Herrera, I. 30 (1982) 225  
 Graf, W., see Chang, T.Y. 73 (1989) 259  
 Grandhi, R.V., see Haftka, R.T. 57 (1986) 91  
 Greene, W.H., see Noor, A.K. 12 (1979) 289  
 Greenwell, D.L., see Belytschko, T. 81 (1990) 229  
 Grenier, R.M., see Charman, C.M. 33 (1982) 759  
 Grice, W.A., see Golley, B.W. 76 (1989) 101  
 Griffiths, D.F., see Duncan, D.B. 45 (1984) 147  
 Griffiths, S.K., see Nilson, R.H. 36 (1983) 359  
 Guerlement, G., see Cinquini, C. 11 (1977) 19  
 Guerlement, G., see Lamblin, D. 13 (1978) 233  
 Guerreiro, J.N.C., see Loula, A.F.D. 79 (1990) 87  
 Guerri, L., see Comincioli, V. 7 (1976) 153  
 Gui, W., see Babuška, I. 55 (1986) 27  
 Guirguis, G.H., see Chu, M.T. 74 (1989) 99  
 Guixu, M., see Xicheng, W. 96 (1992) 25  
 Guo, B.Q., see Babuška, I. 74 (1989) 1  
 Guo, B.Q., see Babuška, I. 80 (1990) 319  
 Guo, Y.H., see Padovan, J. 79 (1990) 113  
 Gupta, S.C., see Garg, V.K. 29 (1981) 259  
 Gupta, S.C., see Garg, V.K. 31 (1982) 61  
 Gupta, S.C., see Garg, V.K. 35 (1982) 35  
 Gustafsson, I., see Axelsson, O. 15 (1978) 241  
 Gustafsson, I., see Axelsson, O. 20 (1979) 9  
 Gvildys, J., see Liu, W.K. 58 (1986) 51  
 Haase, M., see Argyris, J.H. 16 (1978) 369  
 Haase, M., see Argyris, J.H. 17/18 (1979) 1  
 Haase, M., see Argyris, J.H. 22 (1980) 1  
 Haase, M., see Argyris, J.H. 30 (1982) 335  
 Haase, M., see Argyris, J. 61 (1987) 71  
 Haase, M., see Argyris, J. 86 (1991) 1  
 Haase, M., see Argyris, J. 91 (1991) 997  
 Haber, R.B., see Phelan, D.G. 77 (1989) 31  
 Haber, R.B., see Tortorelli, D.A. 77 (1989) 61  
 Hadjidimos, A., see Evans, D.J. 29 (1981) 97  
 Hafez, M.M., see Wellford Jr., L.C. 22 (1980) 161  
 Haftka, R.T., see Shin, Y.S. 70 (1988) 151  
 Haftka, R.T., see Watson, L.T. 74 (1989) 289

- Haines, J.L., see Bailey, C.D. 26 (1981) 1
- Haldar, A., see Nee, K.-M. 71 (1988) 69
- Hälg, W., see Auerbach, T. 2 (1973) 133
- Hälg, W., see Mennig, J. 39 (1983) 199
- Halleux, J.P., see Donea, J. 33 (1982) 689
- Hallquist, J.O., see Goudreau, G.L. 33 (1982) 725
- Hallquist, J.O., see Hughes, T.J.R. 61 (1987) 215
- Hallquist, J.O., see Benson, D.J. 78 (1990) 141
- Hamdan, S.M., see Wellford Jr., L.C. 14 (1978) 377
- Hammoum, F., see Loret, B. 98 (1992) 399
- Han, G.-M., see Li, H.-B. 54 (1986) 161
- Hansen, J.S., see McNeill, N.J. 25 (1981) 335
- Hansen, J.S., see Heppler, G.R. 36 (1983) 155
- Hansen, J.S., see Heppler, G.R. 54 (1986) 21
- Haque, K.A., see Strouboulis, T. 97 (1992) 399
- Haque, K.A., see Strouboulis, T. 100 (1992) 359
- Hardy, O., see Demkowicz, L. 77 (1989) 79
- Hardy, O., see Demkowicz, L. 88 (1991) 363
- Harichandran, R.S., see Zhang, Y. 81 (1990) 57
- Haroutunian, V., see Givler, R.C. 87 (1991) 175
- Harris, P.J., see Amini, S. 84 (1990) 59
- Harrison, I.R., see Stetson, K.A. 16 (1978) 151
- Hartley, S.J., see Noor, A.K. 12 (1977) 289
- Hassan, O., see Morgan, K. 87 (1991) 335
- Haug, E.J., see Song, J.O. 24 (1980) 359
- Haug, E.J., see Kim, S.-S. 71 (1988) 293
- Haug, E.J., see Kim, S.-S. 74 (1989) 251
- Hayano, S., see Saito, Y. 49 (1985) 109
- Hayes, R.E., see Fauchon, D. 70 (1988) 139
- Hayhurst, D.R., see Lavender, D.A. 56 (1986) 139
- He, D.-W., see Liu, G. 96 (1992) 109
- He, J., see Atamian, C. 91 (1991) 1271
- Hecht, F., see George, P.L. 92 (1991) 269
- Heinemann, R.F., see Ewing, R.E. 47 (1984) 161
- Heinemann, R.F., see Ewing, R.E. 64 (1987) 137
- Heinrich, J.C., see Zienkiewicz, O.C. 17/18 (1979) 673
- Heinrich, J.C., see Bergman, L.A. 27 (1981) 345
- Heinrich, J.C., see Argyris, J. 86 (1991) 1
- Heise, U., see Müller, C.H. 21 (1980) 17
- Hemami, H., see Langer, F.D. 62 (1987) 255
- Hensley, J.L., see Douglas, Jr., J. 87 (1991) 157
- Herrera, I., see Alduncin, G. 42 (1984) 257
- Hien, T.D., see Kleiber, M. 37 (1983) 93
- Hill, R.D., see Rozvany, G.I.N. 13 (1978) 151
- Hillmann, J., see Kröplin, B. 52 (1985) 885
- Hills, D.A., see Dewynne, J.N. 97 (1992) 321
- Hilpert, O., see Argyris, J.H. 20 (1979) 105
- Hindenlang, U., see Argyris, J.H. 22 (1980) 361
- Hindenlang, U., see Argyris, J.H. 35 (1982) 221
- Hirsh, R.S., see Cebeci, T. 27 (1981) 13
- Hirsh, R.S., see Ku, H.-C. 75 (1989) 141
- Hirsh, R.S., see Ku, H.C. 80 (1990) 381
- Hirt, C.W., see Stein, L.R. 11 (1977) 57
- Hitiroglou, J.A., see Boudourides, M.A. 56 (1986) 83
- Hjelmstad, K.D., see Simo, J.C. 42 (1984) 301
- Ho, P.T.S., see Meek, J.L. 37 (1983) 25
- Hoa, S.V., see Fabrikant, V. 29 (1981) 19
- Hogge, M., see Sander, G. 17/18 (1979) 315
- Hohenemser, K.H., see Kung, W.-C. 12 (1977) 69
- Holand, I., see Bergan, P.G. 17/18 (1979) 443
- Holla, D.N., see Jain, P.C. 15 (1978) 175
- Holla, V.S., see Simha Prasad, D.S. 23 (1980) 59
- Hollkamp, J., see Elishakoff, I. 62 (1987) 27
- Holsapple, K.A., see Choe, K.Y. 95 (1992) 141
- Holz, K.-P., see Withum, D. 17/18 (1979) 699
- Honnor, M.E., see Perić, D. 94 (1992) 35
- Hsiao, K.M., see Chan, A.S.L. 52 (1985) 899
- Hsieh, S.S., see Lee, S.H. 81 (1990) 151
- Hsu, C.S., see Sun, J.Q. 83 (1990) 109
- Huang, A.-X., see Li, K.-T. 41 (1983) 175
- Huang, C.Y., see Tworzydło, W.W. 97 (1992) 245
- Huang, M.-K., see Wang, X.-X. 86 (1991) 73
- Huang, Z.-X., see Pan, N.-Q. 37 (1983) 1
- Huerta, A., see Pijaudier-Cabot, G. 90 (1991) 905
- Huetink, J., see Van der Lugt, J. 54 (1986) 145
- Hughes, T.G., see Morgan, K. 19 (1979) 117
- Hughes, T.J.R., see Malkus, D.S. 15 (1978) 63
- Hughes, T.J.R., see Brooks, A.N. 32 (1982) 199
- Hughes, T.J.R., see Tessler, A. 39 (1983) 311
- Hughes, T.J.R., see Tessler, A. 50 (1985) 71
- Hughes, T.J.R., see Mizukami, A. 50 (1985) 181
- Hughes, T.J.R., see Winget, J.M. 52 (1985) 711
- Hughes, T.J.R., see Loula, A.F.D. 63 (1987) 115
- Hughes, T.J.R., see Loula, A.F.D. 63 (1987) 133
- Hughes, T.J.R., see Loula, A.F.D. 63 (1987) 281
- Hughes, T.J.R., see Franca, L.P. 69 (1988) 89
- Hughes, T.J.R., see Loula, A.F.D. 72 (1989) 201
- Hughes, T.J.R., see Shakib, F. 75 (1989) 415
- Hughes, T.J.R., see Hoff, C. 76 (1989) 87
- Hughes, T.J.R., see Hulbert, G.M. 84 (1990) 327
- Hughes, T.J.R., see Barbosa, H.J.C. 85 (1991) 109

- Hughes, T.J.R., see Harari, I. 87 (1991) 59  
 Hughes, T.J.R., see Johan, Z. 87 (1991) 281  
 Hughes, T.J.R., see Shakib, F. 87 (1991) 35  
 Hughes, T.J.R., see Shakib, F. 89 (1991) 141  
 Hughes, T.J.R., see Nomura, T. 95 (1992) 115  
 Hughes, T.J.R., see Franca, L.P. 95 (1992) 253  
 Hughes, T.J.R., see Simo, J.C. 95 (1992) 277  
 Hughes, T.J.R., see Harari, I. 97 (1992) 77  
 Hughes, T.J.R., see Harari, I. 97 (1992) 103  
 Hughes, T.J.R., see Harari, I. 97 (1992) 157  
 Hughes, T.J.R., see Barbosa, H.J.C. 97 (1992) 193  
 Hughes, T.J.R., see Harari, I. 98 (1992) 411  
 Hughes, T.J.R., see Johan, Z. 99 (1992) 113  
 Hulbert, G.M., see Hughes, T.J.R. 66 (1988) 339  
 Hulbert, G.M., see Hughes, T.J.R. 73 (1989) 173  
 Hulbert, G., see Hoff, C. 76 (1989) 87  
 Humphrey, J.A.C., see Han, T. 29 (1981) 81  
 Hung, H.-C., see Hsiao, K.-M. 73 (1989) 209  
 Huot, J.-P., see Molina, R.-C. 95 (1992) 37  
 Huseyin, K., see Jain, N.K. 40 (1983) 277  
 Hussaini, M.Y., see Degani, D. 25 (1981) 11  
 Hussaini, M.Y., see Drummond, J.P. 64 (1987) 39  
 Hutchinson, C.E., see Chon, Y.T. 9 (1976) 139  
  
 Iacono, R., see Gruber, R. 52 (1985) 675  
 Ibnou Zahir, M., see Planchard, J. 41 (1983) 47  
 Ibrani, S., see Dwyer, H.A. 75 (1989) 333  
 Idelberger, H., see Rothert, H. 51 (1985) 139  
 Idelsohn, S.R., see Storti, M. 66 (1988) 65  
 Idelsohn, S., see Storti, M. 93 (1991) 13  
 Idelsohn, S.R., see Baumann, C.E. 95 (1992) 49  
 Igra, O., see Elperin, T. 57 (1986) 181  
 Ijam, A.Z., see Taylor, C. 19 (1979) 429  
 Ioakimidis, N., see Theocaris, P.S. 24 (1980) 1  
 Ioakimidis, N.I., see Anastasselou, E.G. 65 (1987) 165  
 Isaacs, L.T., see Apelt, C.J. 12 (1977) 383  
 Isenberg, J., see Wolberg, J.R. 5 (1975) 1  
 Israeli, M., see Neishlos, H. 41 (1983) 129  
 Issa, R.I., see Ahmadi-Befruai, B. 79 (1990) 249  
 Iwanow, Z., see Gutkowski, W. 51 (1985) 71  
 Iyengar, S.R.K., see Jain, M.K. 38 (1983) 137  
 Iyengar, S.R.K., see Jain, M.K. 42 (1984) 273  
 Iyer, K.S.S., see Balasubramonian, S. 31 (1982) 233  
 Izadpanah, K., see Shyy, Y.K. 71 (1988) 99  
 Jackson, E., see She, Z.-S. 80 (1990) 173  
  
 Jacobi, W., see Rothert, H. 51 (1985) 139  
 Jacquotte, O.-P., see Oden, J.T. 43 (1984) 231  
 Jaffre, J., see Chavent, G. 47 (1984) 93  
 Jami, A., see Lenoir, M. 16 (1978) 341  
 Jang, J.-Y., see Hsiao, K.-M. 87 (1991) 1  
 Jasti, R., see Karamanlidis, D. 67 (1988) 161  
 Jasti, R.V., see Pinsky, P.M. 85 (1991) 151  
 Jensen, S., see Fraeme, D.A. 86 (1991) 105  
 Jetteur, P., see Jaamei, S. 75 (1989) 251  
 Ji, X., see Chen, Z.Q. 78 (1990) 1  
 Jiang, B.-N., see Carey, G.F. 62 (1987) 145  
 Jiang, B.-N., see Chang, C.L. 84 (1990) 247  
 Johan, Z., see Shakib, F. 75 (1989) 415  
 Johan, Z., see Shakib, F. 89 (1991) 141  
 Johnsen, T.L., see Brønlund, O.E. 3 (1974) 153  
 Johnsen, T.L., see Braun, K.A. 4 (1974) 1  
 Johnsen, T.L., see Frik, G. 6 (1975) 65  
 Johnsen, T.L., see Argyris, J.H. 7 (1976) 261  
 Johnsen, T.L., see Argyris, J.H. 10 (1977) 105  
 Johnsen, T.L., see Gekeler, E. 10 (1977) 359  
 Johnsen, T.L., see Argyris, J.H. 15 (1978) 365  
 Johnsen, T.L., see Argyris, J.H. 19 (1979) 277  
 Johnsen, T.L., see Argyris, J.H. 24 (1980) 215  
 Johnson, A., see Fried, I. 56 (1986) 283  
 Johnson, A.R., see Fried, I. 67 (1988) 241  
 Johnson, A.R., see Fried, I. 69 (1988) 53  
 Johnson, C., see Hansbo, P. 87 (1991) 267  
 Johnson, K.H., see Lewis, R.W. 44 (1984) 17  
 Johnsson, S.L., see Johan, Z. 99 (1992) 113  
 Joly, P., see Amara, M. 39 (1983) 1  
 Joly, P., see Eymard, R. 74 (1989) 83  
 Joly, P., see Bamberger, A. 75 (1989) 11  
 Joly, P., see Cohen, G. 80 (1990) 397  
 Jong, K.-Y., see Rencis, J.J. 73 (1989) 295  
 Joseph, K.T., see Patnaik, S.N. 55 (1986) 239  
 Jurina, L., see Maier, G. 17/18 (1979) 469  
 Just, M., see Lepik, Ü. 38 (1983) 19  
 Justesen, P., see Ekebjærg, L. 88 (1991) 287  
  
 Kabaila, A., see Carey, G.F. 30 (1982) 151  
 Kadiyar, M.K., see Bernstein, B. 27 (1981) 279  
 Kamel, A., see Sguazzero, P. 80 (1990) 165  
 Kamel, H.A., see Sarigul, N. 34 (1982) 939  
 Kanarachos, A., see Antoniadis, I. 70 (1988) 1  
 Kanoknukulchai, W., see Hughes, T.J.R. 8 (1976) 249  
 Kant, T., see Pandya, B.N. 66 (1988) 173  
 Kaper, H.G., see Lindeman, A.J. 4 (1974) 97  
 Karaca, C., see Yurtseven, H.O. 34 (1982) 787



- Karafiati, A., see Demkowicz, L. 42 (1984) 343
- Karami, G., see Farshad, M. 73 (1989) 111
- Karasalo, I., see Concus, P. 16 (1978) 327
- Karihaloo, B.L., see Kanagasundaram, S. 58 (1986) 121
- Karkanis, A., see Sparis, P.D. 98 (1992) 273
- Karniadakis, G.E., see Bègue, C. 75 (1989) 109
- Kashava Kumar, B.L., see Kane, J.H. 79 (1990) 219
- Kassab, A.J., see Hsieh, C.K. 86 (1991) 189
- Kato, M., see Ando, S. 43 (1984) 103
- Kato, M., see Ando, S. 49 (1985) 343
- Kavian, O., see Coulaud, O. 80 (1990) 451
- Kawamura, T., see Chyu, W.J. 64 (1987) 21
- Kechkar, N., see Silvester, D.J. 79 (1990) 71
- Kechter, G.E., see Achenbach, J.D. 70 (1988) 191
- Keer, L.M., see Mastrojannis, E.N. 39 (1983) 93
- Keller, H.B., see Cebeci, T. 27 (1981) 13
- Keller, J.B., see Givoli, D. 76 (1989) 41
- Kendall, R.P., see Douglas, Jr., J. 47 (1984) 119
- Kendall, R.P., see Douglas, Jr., J. 47 (1984) 131
- Kennedy, J.G., see Simo, J.C. 74 (1989) 177
- Kennedy, J.G., see Simo, J.C. 96 (1992) 133
- Kennedy, J.M., see Belytschko, T. 33 (1982) 669
- Kennedy, J.M., see Belytschko, T. 43 (1984) 251
- Kennedy, J.M., see Belytschko, T. 81 (1990) 229
- Kennon, S.R., see Carcaillet, R. 57 (1986) 279
- Kennon, S.R., see Hayes, L.J. 59 (1986) 141
- Kermanidis, T.B., see Mastrojannis, E.N. 35 (1982) 285
- Kern, M., see Bamberger, A. 75 (1989) 11
- Kesavan, S., see Ciarlet, P.G. 26 (1981) 145
- Key, S.W., see Biffle, J.H. 12 (1977) 323
- Khaliq, A.Q.M., see Twizell, E.H. 41 (1983) 91
- Khazin, L.G., see Imshennik, V.S. 9 (1976) 1
- Khulief, Y.A., see Changizi, K. 54 (1986) 93
- Kikuchi, N., see Ohtake, K. 24 (1980) 187
- Kikuchi, N., see Ohtake, K. 24 (1980) 317
- Kikuchi, N., see Okabe, M. 28 (1981) 1
- Kikuchi, N., see Oden, J.T. 31 (1982) 297
- Kikuchi, N., see Campos, L.T. 34 (1982) 821
- Kikuchi, N., see Okabe, M. 36 (1983) 167
- Kikuchi, N., see Okabe, M. 36 (1983) 257
- Kikuchi, N., see Okabe, M. 40 (1983) 219
- Kikuchi, N., see Diaz, A.R. 41 (1983) 29
- Kikuchi, N., see Cheng, J.-H. 49 (1985) 71
- Kikuchi, N., see Koh, B.C. 65 (1987) 1
- Kikuchi, N., see Bendsøe, M.P. 71 (1988) 197
- Kikuchi, N., see Lee, M.S. 72 (1989) 29
- Kikuchi, N., see Guedes, J.M. 83 (1990) 143
- Kikuchi, N., see Ghosh, S. 86 (1991) 127
- Kikuchi, N., see Suzuki, K. 93 (1991) 291
- Kindelan, M., see Sguazzero, P. 80 (1990) 165
- Kishnani, S.S., see Borja, R.I. 88 (1991) 341
- Kishore, N.N., see Saha, S. 92 (1991) 343
- Kivity, Y., see Neishlos, H. 41 (1983) 129
- Klarbring, A., see Edlund, U. 78 (1990) 19
- Klarbring, A., see Edlund, U. 96 (1992) 329
- Kleiber, M., see Argyris, J.H. 11 (1977) 215
- Kleiber, M., see Argyris, J.H. 14 (1978) 259
- Kleiber, M., see Argyris, J.H. 17/18 (1979) 1
- Kleiber, M., see Boni, B. 19 (1979) 1
- Kleiber, M., see Argyris, J.H. 22 (1980) 361
- Kleiber, M., see Borkowski, A. 22 (1980) 101
- Kleiber, M., see Argyris, J.H. 35 (1982) 221
- Kleiber, M., see Argyris, J.H. 43 (1984) 325
- Knight, Jr., N.F., see Noor, A.K. 23 (1980) 225
- Knudson, W.C., see Argyris, J.H. 17/18 (1979) 341
- Koch, M., see Kanarachos, A. 51 (1985) 79
- Koebbe, J.V., see Ewing, R.E. 64 (1987) 137
- Kohn, R.V., see Strang, G. 36 (1983) 207
- Kohn, R.V., see Goodman, J. 57 (1986) 107
- Kokkinos, C.A., see Papamichael, N. 28 (1981) 285
- Kokkinos, C.A., see Papamichael, N. 31 (1982) 189
- König, J.A., see Nguyen Dang Hung 8 (1976) 179
- König, J.A., see Atkočiūnas, J. 28 (1981) 365
- König, J.A., see Kleiber, M. 33 (1982) 487
- König, M., see Balmer, H. 3 (1974) 87
- König, M., see Nagy, D. 19 (1979) 447
- Korngold, E.V., see Shephard, M.S. 82 (1990) 257
- Koshy, K., see Batra, R.L. 19 (1979) 313
- Kourta, A., see Hanine, F. 89 (1991) 221
- Kovenya, V.M., see Yanenko, N.N. 17/18 (1979) 659
- Kreiss, H.-O., see Engquist, B. 17/18 (1979) 581
- Kreuzer, E., see Bestle, D. 59 (1986) 1
- Krieg, R.D., see Key, S.W. 17/18 (1979) 597
- Krieg, R.D., see Key, S.W. 33 (1982) 439
- Krishnamachari, S.V., see Hayes, L.J. 47 (1984) 187
- Krishnan, R., see Carey, G.F. 26 (1981) 173

- Krishnan, R., see Carey, G.F. 30 (1982) 323  
 Krishnan, R., see Carey, G.F. 35 (1982) 169  
 Krishnan, R., see Carey, G.F. 42 (1984) 183  
 Krishnan, R., see Carey, G.F. 48 (1985) 265  
 Krishnan, R., see Carey, G.F. 60 (1987) 1  
 Krzeczkowski, A.J., see Hayhurst, D.R. 20 (1979) 151  
 Kubota, H., see Wada, A. 91 (1991) 1365  
 Kuhn, G., see Alujevic, A. 91 (1991) 1187  
 Kuhnell, B.T., see Rozvany, G.I.N. 24 (1980) 287  
 Kujawski, J., see Desai, C.S. 62 (1987) 155  
 Kumar, A., see Gupta, R.S. 44 (1984) 91  
 Kumar, A., see Gupta, R.S. 56 (1986) 127  
 Kumar, D., see Gupta, R.S. 23 (1980) 101  
 Kumar, D., see Gupta, R.S. 29 (1981) 233  
 Kumar, D., see Gupta, R.S. 37 (1983) 139  
 Kumar, R., see Jain, R.K. 72 (1989) 187  
 Kuo, Y.H., see Lee, S.Y. 84 (1990) 163  
 Kuszmaul, J.S., see Taylor, L.M. 55 (1986) 301  
  
 Labib Iskandar, see Jain, P.C. 20 (1979) 195  
 Lakes, R.S., see Nakamura, S. 66 (1988) 257  
 Lal, J., see Singh, B. 40 (1983) 159  
 Lam, C.M., see Liu, C.Y. 9 (1976) 281  
 Lam, D., see Liu, W.K. 44 (1984) 177  
 Lam, D., see Liu, W.K. 55 (1986) 259  
 Lamain, L.G., see Donea, J. 63 (1987) 183  
 Lamb, A., see Hajela, P. 57 (1986) 25  
 Lamblin, D., see Cinquini, C. 11 (1977) 19  
 Langlois, W.E., see Golub, G.H. 19 (1979) 391  
 Larkin, N.A., see Kovaljov, O.B. 22 (1980) 259  
 Larrourou, B., see Benkhaldoun, F. 76 (1989) 119  
 Larsen, P.K., see Eidsheim, O.M. 34 (1982) 989  
 Laschet, G., see Idelsohn, S. 30 (1982) 133  
 Lau, S.L., see Carey, G.F. 22 (1980) 121  
 Lau, T.B., see Chan, A.S.L. 62 (1987) 127  
 Laudiero, F., see Cannarozzi, A.A. 16 (1978) 47  
 Launder, B.E., see Han, T. 29 (1981) 81  
 Launder, B.E., see Barba, A. 44 (1984) 49  
 Launder, B.E., see Huang, P.G. 48 (1985) 1  
 Laurent-Gengoux, P., see Dilintas, G. 84 (1990) 111  
 Laursen, M.E., see Gellert, M. 7 (1976) 285  
 Laval, H., see Donea, J. 30 (1982) 53  
 Laval, H., see Donea, J. 45 (1984) 123  
 Laval, H., see Donea, J. 68 (1988) 189  
 Law, E.S., see Liu, W.K. 55 (1986) 259  
 Lawrence, M.A., see Besterfield, G.H. 86 (1991) 297  
 Laxander, A., see Argyris, J. 94 (1992) 181  
 Le Tallec, P., see De Roeck, Y.-H. 99 (1992) 187  
 Leaf, G.K., see Lindeman, A.J. 4 (1974) 97  
 Lebedev, V.I., see Tikhonov, V.S. 38 (1983) 169  
 Leckie, F.A., see Ranaweera, M.P. 19 (1979) 367  
 Lee, J.K., see Babuška, I. 11 (1977) 175  
 Lee, J.K., see Babuška, I. 14 (1978) 1  
 Lee, K.-J., see Langlois, W.E. 9 (1976) 219  
 Lee, K.N., see Nemat-Nasser, S. 2 (1979) 33  
 Lee, N.-S., see Bathe, K.-J. 82 (1990) 5  
 Lee, S.-C., see Chen, C.-K. 59 (1986) 73  
 Lee, S.R., see Borja, R.I. 78 (1990) 49  
 Lemaitre, J., see Benallal, A. 92 (1991) 141  
 LeMonds, J., see Needleman, A. 52 (1985) 689  
 Léné, F., see Bernardou, M. 74 (1989) 307  
 Leon, N., see Jirousek, J. 12 (1977) 77  
 Lepora, P., see Gabutti, B. 6 (1975) 31  
 Leroy, Y., see Ortiz, M. 61 (1987) 189  
 Leschziner, M.A., see Huang, P.G. 48 (1985) 1  
 Leschziner, M.A., see Zhu, J. 67 (1988) 335  
 Leu, L.-J., see Yang, Y.-B. 92 (1991) 121  
 Levit, I., see Hughes, T.J.R. 36 (1983) 241  
 Lewis, C.H., see Miner, E.W. 4 (1974) 19  
 Lewis, R.W., see Srinatha, H.R. 25 (1981) 21  
 Leyland, P., see Angrand, F. 75 (1989) 167  
 Li, C.H., see Ballal, G. 75 (1989) 467  
 Li, L., see Babuška, I. 100 (1992) 249  
 Li, Z.H., see Owen, D.R.J. 70 (1988) 349  
 Lin, J.I., see Belytschko, T. 42 (1984) 225  
 Lin, T.L., see Oden, J.T. 57 (1986) 297  
 Lindskog, G., see Gustafsson, I. 55 (1986) 201  
 Liou, J., see Tezduyar, T.E. 78 (1990) 165  
 Liou, J., see Tezduyar, T.E. 83 (1990) 121  
 Liou, J., see Tezduyar, T.E. 85 (1991) 207  
 Liou, J., see Tezduyar, T.E. 94 (1992) 339  
 Liou, J., see Tezduyar, T.E. 94 (1992) 353  
 Liou, J., see Pironneau, O. 100 (1992) 117  
 Lipinski, J., see Dems, K. 6 (1975) 49  
 Lipitakis, E.A., see Evans, D.J. 23 (1980) 1  
 Lisejkin, V.D., see Yanenko, N.N. 17/18 (1979) 659  
 Liszka, T., see Demkowicz, L. 42 (1984) 343  
 Liu, C.H., see Gunzburger, M.D. 39 (1983) 55  
 Liu, M.-R., see Malkus, D.S. 68 (1988) 97  
 Liu, W.K., see Hughes, T.J.R. 26 (1981) 331  
 Liu, W.K., see Hughes, T.J.R. 27 (1981) 167

- Liu, W.K., see Belytschko, T. 29 (1981) 313  
 Liu, W.K., see Hughes, T.J.R. 29 (1981) 329  
 Liu, W.K., see Belytschko, T. 43 (1984) 251  
 Liu, W.K., see Belytschko, T. 44 (1984) 269  
 Liu, W.K., see Belytschko, T. 49 (1985) 281  
 Liu, W.K., see Belytschko, T. 51 (1985) 221  
 Liu, W.K., see Bachrach, W.E. 55 (1986) 43  
 Liu, W.K., see Belytschko, T. 62 (1987) 275  
 Liu, W.K., see Smolinski, P. 65 (1987) 115  
 Liu, W.K., see Huerta, A. 69 (1988) 277  
 Liu, W.K., see Lu, Y.Y. 85 (1991) 21  
 Liu, W.K., see Besterfield, G.H. 86 (1991) 297  
 Lochner, N., see Argyris, J.H. 1 (1972) 317  
 Loganathan, S., see Meek, J.L. 72 (1989) 57  
 Lokutsievskii, O.V., see Imshennik, V.S. 9 (1976) 1  
 Lorenz, J., see Griffiths, D.F. 14 (1978) 39  
 Loret, B., see Prevost, J.H. 83 (1990) 275  
 Losito, V., see Napolitano, L.G. 13 (1978) 335  
 Lotfi, A., see Le Tallec, P. 68 (1988) 67  
 Lottati, I., see Elishakoff, I. 66 (1988) 241  
 Loula, A.F.D., see Murad, M.A. 95 (1992) 359  
 Lu, S.C.-Y., see Tortorelli, D.A. 77 (1989) 61  
 Lu, Y.Y., see Belytschko, T. 95 (1992) 87  
 Lu, Y.Y., see Belytschko, T. 95 (1992) 383  
 Luco, J.E., see Mita, A. 63 (1987) 233  
 Lui Xiao-an, see Cheng Chang-jun 92 (1991) 57  
 Lui Xiao-an, see Cheng Chang-jun 92 (1991) 173  
 Luo, J.-W. see Cheng, W.-Q. 71 (1988) 31  
 Luo, S., see Zhu, P. 26 (1981) 305  
 Luo, S.J., see Shen, K.-Y. 49 (1985) 149  
 Luo, S., see Zhang, W. 96 (1992) 351  
 Lutoborski, A., see Destuynder, P. 35 (1982) 127  
  
 Ma, D.C., see Liu, W.K. 31 (1982) 129  
 Macagno, E., see Stavitsky, D. 26 (1981) 265  
 Machura, M., see Klosowiak, T. 12 (1977) 337  
 Maday, Y., see Bègue, C. 75 (1989) 109  
 Maday, Y., see Ho, L.-W. 80 (1990) 65  
 Maday, Y., see Bernardi, C. 80 (1990) 229  
 Mahajerin, E., see Burgess, G. 49 (1985) 1  
 Maheshwari, M.N., see Pao, Y.C. 3 (1974) 305  
 Maier, G., see Contro, R. 5 (1975) 127  
 Maier, G., see König, J.A. 8 (1976) 37  
 Maier, G., see Kaneko, I. 27 (1981) 369  
 Maier, G., see Comi, C. 96 (1992) 213  
 Maitan, J., see Sarigul, N. 34 (1982) 939  
 Maiti, M., see Patnaik, S.N. 7 (1971) 303  
 Majumdar, S., see Rodi, W. 75 (1989) 369  
  
 Makris, P., see Kanarachos, A. 51 (1985) 79  
 Malejannakis, G.A., see Argyris, J.H. 10 (1977) 371  
 Malejannakis, G.A., see Argyris, J.H. 11 (1977) 97  
 Malejannakis, G.A., see Argyris, J.H. 15 (1978) 99  
 Malejannakis, G.A., see Argyris, J.H. 17/18 (1979) 1  
 Malejannakis, G.A., see Argyris, J.H. 20 (1979) 105  
 Malkus, D.S., see Bernstein, B. 27 (1981) 279  
 Malkus, D.S., see Cornwell, R.E. 97 (1992) 149  
 Mallet, M., see Hughes, T.J.R. 54 (1986) 223  
 Mallet, M., see Hughes, T.J.R. 54 (1986) 341  
 Mallet, M., see Hughes, T.J.R. 58 (1986) 305  
 Mallet, M., see Hughes, T.J.R. 58 (1986) 329  
 Mallet, M., see Hughes, T.J.R. 63 (1987) 97  
 Mallet, M., see Brezzi, F. 96 (1992) 117  
 Mallett, R.L., see Lee, E.H. 5 (1975) 69  
 Mallett, R.L., see Lee, E.H. 10 (1977) 339  
 Mallis, J., see Kounadis, A.N. 95 (1992) 317  
 Malone, J.B., see Sotomayer, W.A. 64 (1987) 237  
 Mang, H.A., see Li, H.-B. 54 (1986) 161  
 Mani, A., see Liu, W.K. 56 (1986) 61  
 Mansour El-Saadany, H., see Boutros, Y.Z. 81 (1990) 173  
 Mantegazza, P., see Borri, M. 12 (1977) 19  
 Marin, P., see Ladeveze, P. 94 (1992) 303  
 Marini, L.D., see Brezzi, F. 75 (1989) 493  
 Marraffa, L., see Dulikravich, G.S. 79 (1990) 309  
 Marrocco, A., see Glowinski, R. 3 (1974) 55  
 Marrocco, A., see Glowinski, R. 12 (1977) 33  
 Marshall, R.S., see Heinrich, J.C. 25 (1981) 49  
 Martin, J.B., see Resende, L. 42 (1984) 1  
 Martin, J.B., see Reddy, B.D. 93 (1991) 253  
 Martin, J.B., see Rencontre, L.J. 96 (1992) 201  
 Martin, W.A., see Zografos, A.I. 61 (1987) 177  
 Martin, W.W., see Currie, I.G. 21 (1980) 75  
 Martins, J.A.C., see Oden, J.T. 52 (1985) 527  
 Mascarell, J.P., see La Hargue, J.P. 75 (1989) 227  
 Masoud, S.Z., see Boutros, Y.Z. 65 (1987) 215  
 Masuda, N., see Yoshida, Y. 32 (1982) 285  
 Masuda, Y., see Tanaka, M. 71 (1988) 225  
 Masui, T., see Nakamura, T. 98 (1992) 1  
 Mathur, K.K., see Johan, Z. 99 (1992) 113  
 Matthews, R.D., see Kiehne, T.M. 83 (1990) 9  
 Maubach, J., see Axelsson, O. 71 (1988) 41  
 Mavriplis, C., see Bègue, C. 75 (1989) 109

- Mazzarella, C., see Polizzotto, C. 12 (1977) 129
- Mazzarella, C., see Kaneko, I. 37 (1983) 185
- McCammond, D., see Heng, Z. 54 (1986) 187
- McCammond, D., see Heng, Z. 97 (1992) 317
- McGuire, W., see Orbison, J.G. 33 (1982) 557
- McKee, S., see Cameron, R.F. 29 (1981) 219
- McKerrell, A., see Kermod, M. 50 (1985) 205
- McInnis, B.C., see Huan, S.-L. 41 (1983) 123
- McMeeking, R.M., see Rice, J.R. 17/18 (1979) 411
- McNeice, G.M., see Svec, O.J. 1 (1972) 265
- Mehta, A.K., see Peano, A.G. 16 (1978) 69
- Meissner, U., see Withum, D. 17/18 (1979) 699
- Mennig, J., see Auerbach, T. 2 (1973) 133
- Mennig, J., see Lemanska, M. 5 (1975) 329
- Mennig, J., see Auerbach, T. 76 (1989) 1
- Merazzi, S., see Gruber, R. 91 (1991) 1135
- Merlo, G., see Gabutti, B. 6 (1975) 31
- Merriam, M., see Löhner, R. 95 (1992) 343
- Messerschmid, E.W., see Gogel, T.H. 89 (1991) 425
- Metzler, J.A., see Fried, I. 15 (1978) 83
- Meyer, D.W., see Qiu, X. 93 (1991) 385
- Miedzialowski, C., see Desai, C.S. 62 (1987) 155
- Miehe, C., see Wriggers, P. 70 (1988) 329
- Miehe, C., see Simo, J.C. 98 (1992) 411
- Miller, A., see Babuška, I. 61 (1987) 1
- Miller, H.G., see Quick, R.M. 48 (1985) 301
- Miller, J.J.H., see Fitzsimons, C.J. 84 (1990) 43
- Miranda, I., see Loula, A.F.D. 63 (1987) 133
- Miranda, I., see Loula, A.F.D. 63 (1987) 281
- Miranda, I., see Loula, A.F.D. 72 (1989) 201
- Missaghi, M., see Bradley, D. 69 (1988) 133
- Mistakidis, E.S., see Panagiotopoulos, P.D. 99 (1992) 395
- Mistry, J., see Sutcliffe, W.J. 7 (1976) 179
- Mitchell, A.R., see Griffiths, D.F. 45 (1984) 177
- Mitchell, G.P., see Reddy, B.D. 41 (1983) 237
- Mittal, S., see Tezduyar, T.E. 87 (1991) 363
- Mittal, S., see Tezduyar, T.E. 94 (1992) 353
- Mittal, S., see Tezduyar, T.E. 95 (1992) 221
- Mittal, S., see Tezduyar, T.E. 99 (1992) 27
- Miyazawa, K., see Saito, Y. 6 (1975) 249
- Mizukami, A., see Hughes, T.J.R. 54 (1986) 341
- Mlejnek, H.-P., see Argyris, J.H. 15 (1978) 365
- Mlejnek, H.-P., see Argyris, J.H. 17/18 (1979) 1
- Mlejnek, H.-P., see Argyris, J.H. 19 (1979) 277
- Mlejnek, H.-P., see Argyris, J.H. 22 (1980) 1
- Mlejnek, H.-P., see Argyris, J.H. 24 (1980) 215
- Mlejnek, H.-P., see Argyris, J.H. 30 (1982) 335
- Mlejnek, H.-P., see Jehle, U. 83 (1990) 33
- Mohamed, J., see Hendry, J.A. 35 (1982) 271
- Mohamedein, M.S.E.-D., see Iskan-dar, L. 96 (1992) 361
- Mohammadi, B., see Cardot, B. 87 (1991) 103
- Mollestad, E., see Bergan, P.G. 49 (1985) 299
- Montmitonnet, P., see Chenot, J.L. 92 (1991) 245
- Moore, D.B., see Boot, J.C. 43 (1984) 57
- Mora, J.A., see Vu-Quoc, L. 74 (1989) 117
- Morgan, K., see Lewis, R.W. 20 (1979) 291
- Morgan, K., see Lewis, R.W. 44 (1984) 17
- Morgan, K., see Löhner, R. 45 (1984) 313
- Morgan, K., see Löhner, R. 51 (1985) 441
- Morgan, K., see Hassan, O. 76 (1989) 245
- Morris, A.J., see Kelly, D.W. 12 (1977) 219
- Morris, A.J., see Jawed, A.H. 49 (1985) 175
- Morris, A.J., see Watkins, R.I. 60 (1987) 233
- Morris, J.L., see Griffiths, D.F. 45 (1984) 177
- Mortara, K.W., see Dulikravich, G.S. 79 (1990) 309
- Morton, K.W., see Barrett, J.W. 45 (1984) 97
- Mote Jr., C.D., see Young, R.C. 2 (1973) 159
- Mouroutsos, S.G., see Sparis, P.D. 40 (1983) 261
- Mroz, Z., see Szlag, D. 19 (1979) 333
- Mukherjee, S., see Zhang, Q. 86 (1991) 321
- Mukhopadhyay, M., see Mukher-gee, A. 71 (1988) 273
- Mullen, R., see Belytschko, T. 17/18 (1979) 259
- Mullen, R., see Belytschko, T. 27 (1981) 139
- Müller, M., see Argyris, J.H. 10 (1977) 105
- Müller, M., see Argyris, J.H. 13 (1978) 245
- Müller, M., see Argyris, J.H. 15 (1978) 389
- Müller, M., see Argyris, J.H. 17/18 (1979) 1
- Mund, E.H., see Francken, P. 80 (1990) 295
- Mura, T., see Mastrojannis, E.N. 39 (1983) 93
- Murota, K., see Ikeda, K. 86 (1991) 215
- Murphy, C.P., see Evans, D.J. 27 (1981) 81
- Nachlas, J.A., see Haftka, R.T. 60 (1987) 289
- Nagy, D., see Knudson, W.C. 4 (1974) 321
- Nagy, D., see König, M. 16 (1978) 185
- Naida, A.P., see Imshennik, V.S. 9 (1976) 1
- Nakacho, K., see Ueda, Y. 51 (1985) 157
- Nakamura, H., see Rozvany, G.I.N. 24 (1980) 287
- Nakazawa, S., see Zienkiewicz, O.C. 51 (1985) 3
- Namburu, R.R., see Tamma, K.K. 71 (1988) 137

- Narayanan, G.V., see Beskos, D.E. 37 (1983) 289  
 Nash, W.A., see Chon, Y.T. 9 (1976) 139  
 Nath, C., see Matthies, H.G. 48 (1985) 191  
 Nävert, U., see Johnson, C. 45 (1984) 285  
 Nedelec, J.C., see Gregoire, J.P. 8 (1976) 201  
 Nedelec, J.C., see Adam, J.C. 22 (1980) 327  
 Needleman, A., see Ortiz, M. 61 (1987) 189  
 Needleman, A., see Nacar, A. 73 (1989) 235  
 Néel, P., see Charbonneau, G. 98 (1992) 23  
 Negre, R., see Bottero, A. 22 (1980) 131  
 Neittaanmäki, P., see Haslinger, J. 42 (1984) 131  
 Nemat-Nasser, S., see Rashid, M.M. 94 (1992) 201  
 Nemeth, M.P., see Noor, A.K. 21 (1980) 249  
 Nemeth, M.P., see Noor, A.K. 24 (1980) 35  
 Net, M., see Mercarder, I. 91 (1991) 1245  
 Neuner, O., see Swoboda, G. 34 (1982) 1073  
 Nevers, T., see Destuynder, P. 68 (1988) 127  
 Nevers, T., see Destuynder, P. 78 (1990) 73  
 Nguyen, V.-N., see Habashi, W.G. 87 (1991) 253  
 Niamathullah, S.K., see Shabana, A.A. 72 (1989) 195  
 Nickell, R.E., see Tanner, R.I. 6 (1975) 155  
 Nickell, R.E., see Charman, C.M. 33 (1982) 759  
 Nicolaides, R.A., see Gunzburger, M.D. 39 (1983) 55  
 Niemann, L., see Rothert, H. 51 (1985) 139  
 Nigro, N., see Storti, M. 93 (1991) 13  
 Nishiguchi, I., see Okabe, M. 23 (1980) 85  
 Nishiguchi, I., see Okabe, M. 23 (1980) 369  
 Nishimura, T., see Kondo, N. 93 (1991) 169  
 Nölting, S., see Doltsinis, I.S. 89 (1991) 497  
 Nomura, T., see Yoshida, Y. 32 (1982) 285  
 Norbury, J., see Meek, P.C. 46 (1984) 137  
 Norton, M.P., see Chiu, W.K. 83 (1990) 231  
 Nour-Omid, B., see Ortiz, M. 58 (1986) 151  
 Noutsos, D., see Evans, D.J. 29 (1981) 97  
 Nowell, D., see Dewynne, J.N. 97 (1992) 321  
 Nyssen, C., see Sander, G. 17/18 (1979) 315  
 Nyssen, C., see Idelsohn, S. 30 (1982) 133  
 Obrecht, H., see Wunderlich, W. 51 (1985) 259  
 Oden, J.T., see Wellford Jr., L.C. 5 (1975) 83  
 Oden, J.T., see Wellford Jr., L.C. 8 (1976) 1  
 Oden, J.T., see Babuška, I. 11 (1977) 175  
 Oden, J.T., see Babuška, I. 14 (1978) 1  
 Oden, J.T., see Ohtake, K. 24 (1980) 187  
 Oden, J.T., see Ohtake, K. 24 (1980) 317  
 Oden, J.T., see Campos, L.T. 34 (1982) 821  
 Oden, J.T., see Pires, E.B. 39 (1983) 337  
 Oden, J.T., see Martins, J.A.C. 40 (1983) 327  
 Oden, J.T., see Jacquotte, O.-P. 44 (1984) 339  
 Oden, J.T., see Demkowicz, L. 46 (1984) 217  
 Oden, J.T., see Demkowicz, L. 53 (1985) 67  
 Oden, J.T., see Kim, S.J. 53 (1985) 277  
 Oden, J.T., see Demkowicz, L. 55 (1986) 63  
 Oden, J.T., see Jacquotte, O.-P. 55 (1986) 102  
 Oden, J.T., see Strouboulis, T. 59 (1986) 235  
 Oden, J.T., see Devloo, P. 61 (1987) 339  
 Oden, J.T., see Devloo, P. 70 (1988) 203  
 Oden, J.T., see Demkowicz, L. 77 (1989) 79  
 Oden, J.T., see Rachowicz, W. 77 (1989) 181  
 Oden, J.T., see Strouboulis, T. 78 (1990) 201  
 Oden, J.T., see Demkowicz, L. 84 (1990) 275  
 Oden, J.T., see Demkowicz, L. 88 (1991) 363  
 Oden, J.T., see Tworzydło, W.W. 95 (1992) 397  
 Oden, J.T., see Tworzydło, W.W. 97 (1992) 245  
 Ohsaki, M., see Nakamura, T. 67 (1988) 189  
 Ohsaki, M., see Nakamura, T. 94 (1992) 113  
 Ohsaki, M., see Nakamura, T. 98 (1992) 1  
 Oliva, A., see Costa, M. 91 (1991) 1123  
 Oliva, A., see Alba, R. 91 (1991) 1203  
 Olsen, E.T., see Malkus, D.S. 45 (1984) 331  
 Olson, M., see Vu-Quoc, L. 76 (1989) 207  
 Olson, M.D., see Zhong, Q. 85 (1991) 131  
 Olson, M.D., see Koko, T.S. 90 (1991) 737  
 Oñate, E., see Codina, R. 94 (1992) 239  
 Ong, J.S.-J., see Belytschko, T. 43 (1984) 251  
 Ong, J.S.-J., see Belytschko, T. 44 (1984) 269  
 Ong, J.S.-J., see Belytschko, T. 51 (1985) 221  
 Ong, J.S.-J., see Liu, W.K. 53 (1985) 13  
 Ong, J.S.-J., see Belytschko, T. 62 (1987) 275  
 Ordieres Meré, J.B., see Alvarez Vigil, A.E. 99 (1992) 147  
 Orkisz, J., see Argyris, J.H. 16 (1978) 369  
 Orszag, S.A., see She, Z.-S. 80 (1990) 173  
 Ortega, T., see De Frutos, J. 80 (1990) 417  
 Ortiz, E.L., see El Misiery, A.E.M. 56 (1986) 265  
 Ortiz, M., see Pinsky, P.M. 40 (1983) 137  
 Ortiz, M., see Simo, J.C. 49 (1985) 221  
 Ortiz, M., see Nacar, A. 73 (1989) 235  
 Osborn, J., see Arnold, D.N. 45 (1984) 57  
 Osher, S., see Donat, R. 80 (1990) 59  
 Ouellet, Y., see Soulaïmani, A. 62 (1987) 47  
 Ouellet, Y., see Soulaïmani, A. 86 (1991) 265



- Owen, D.R.J., see Marques, J.M.M.C. 42 (1984) 167
- Owen, D.R.J., see Perić, D. 94 (1992) 35
- Page, R.H., see Pandolfini, P.P. 3 (1974) 29
- Pahl, P.J., see Hoff, C. 67 (1988) 87
- Pahl, P.J., see Hoff, C. 67 (1988) 367
- Pahl, P.J., see Hoff, C. 76 (1989) 87
- Palma, G.E., see Stetson, K.A. 16 (1978) 151
- Palma, J.M.L.M., see McGuirk, J.J. 96 (1992) 65
- Pan, T.T. see Carey, G.F. 81 (1990) 1
- Panagouli, O.K., see Panagiotopoulos, P.D. 99 (1992) 395
- Panzeca, T., see Polizzotto, C. 12 (1977) 129
- Papamichael, N., see Levin, D. 12 (1977) 201
- Papegay, Y., see Garnier, C. 75 (1989) 215
- Pardoen, G.C., see Hromadka II, T.V. 53 (1985) 149
- Park, K.C., see Felippa, C.A. 17/18 (1979) 277
- Park, K.C., see Underwood, P.G. 22 (1980) 241
- Park, K.C., see Felippa, C.A. 24 (1980) 61
- Park, K.C., see Nour-Omid, B. 61 (1987) 161
- Park, K.C., see Farhat, C. 85 (1991) 349
- Park, K.C., see Downer, J.D. 96 (1992) 373
- Park, Y.J., see Tezduyar, T.E. 59 (1986) 307
- Parks, D.M., see Nagtegaal, J.C. 4 (1974) 153
- Parks, D.M., see Rice, J.R. 17/18 (1979) 411
- Pasciak, J.E., see Bramble, J.H. 67 (1988) 149
- Pastor, J., see Bottero, A. 22 (1980) 131
- Patera, A.T., see Bègue, C. 75 (1989) 109
- Patera, A.T., see Ho, L.-W. 80 (1990) 65
- Patera, A.T., see Ho, L.-W. 80 (1990) 355
- Patera, A.T., see Anagnostou, G. 97 (1992) 33
- Paterlini, F., see Maier, G. 19 (1979) 21
- Patodi, S.C., see Buragohain, D.N. 16 (1978) 313
- Pattani, P., see Devloo, P. 70 (1988) 203
- Patterson, M.R., see Kleinstreuer, C. 27 (1981) 1
- Paul, B., see Singh, K.P. 2 (1973) 339
- Pavoni, D., see Bressan, N. 80 (1990) 443
- Payre, G., see Delfour, M. 50 (1985) 231
- Pêcheux, J., see Le Quééré, P. 80 (1990) 261
- Peeters, P.P.J.M., see De Borst, R. 77 (1989) 293
- Peirce, D., see Needleman, A. 52 (1985) 689
- Peiro, J., see Morgan, K. 87 (1991) 335
- Pelle, J.P., see Ladeveze, P. 94 (1992) 303
- Pellegrini, F., see Elishakoff, I. 66 (1988) 107
- Peng, L., see Renwei, X. 65 (1987) 101
- Penicaud, J.-P., see Ravier, P. 75 (1989) 531
- Peraire, J., see Lee, J.H.W. 61 (1987) 359
- Peraire, J., see Hassan, O. 76 (1989) 245
- Peraire, J., see Zienkiewicz, O.C. 78 (1990) 105
- Peraire, J., see Morgan, K. 87 (1991) 335
- Perdon, A.M., see Gambolati, G. 41 (1983) 1
- Perego, U., see Comi, C. 96 (1992) 213
- Pérez Segarra, C.D., see Costa, M. 91 (1991) 1123
- Pérez Segarra, C.D., see Alba, R. 91 (1991) 1203
- Pergantis, S., see Sparis, P.D. 98 (1992) 273
- Periaux, J., see Bristeau, M.O. 17/18 (1979) 619
- Periaux, J., see Glowinski, R. 40 (1983) 27
- Periaux, J., see Bristeau, M.O. 51 (1985) 363
- Periaux, J., see Billey, V. 75 (1989) 409
- Periaux, J., see Atamian, C. 91 (1991) 1271
- Perrier, P., see Bristeau, M.O. 17/18 (1979) 619
- Perrier, P., see Bristeau, M.O. 51 (1985) 363
- Pervez, T., see Zabaras, N. 81 (1990) 291
- Peshkam, V., see Dawe, D.J. 77 (1989) 1
- Peters, J.M., see Noor, A.K. 21 (1980) 131
- Peters, J.M., see Noor, A.K. 28 (1981) 217
- Peters, J.M., see Noor, A.K. 29 (1981) 271
- Peters, J.M., see Noor, A.K. 40 (1983) 199
- Peters, J.M., see Noor, A. 44 (1984) 67
- Peters, J.M., see Noor, A.K. 61 (1987) 277
- Peters, J.M., see Noor, A.K. 71 (1988) 167
- Peters, J.M., see Noor, A.K. 82 (1990) 341
- Petersson, H., see Peterson, A. 51 (1985) 277
- Petit, M., see Durieu, J. 43 (1984) 21
- Peyret, R., see Guillard, H. 66 (1988) 17
- Peyret, R., see Fröhlich, J. 80 (1990) 425
- Peyret, R., see Fröhlich, J. 90 (1991) 631
- Pfendt, F., see Leipholz, H.H.E. 30 (1982) 19
- Pfendt, F., see Leipholz, H.H.E. 37 (1983) 341
- Philip, G.M., see Watson, D.F. 50 (1985) 195
- Picone, J.M., see Dahlburg, R.B. 80 (1990) 409
- Pierre, R., see Fortin, M. 73 (1989) 341
- Pietra, P., see Marini, L.D. 56 (1986) 17
- Pietra, P., see Brezzi, F. 75 (1989) 493
- Pillai, A.C.R., see Jain, M.K. 38 (1983) 137
- Pimenta, P.M., see Argyris, J.H. 32 (1982) 3
- Pimenta, P.M., see Argyris, J.H. 45 (1984) 3
- Pinder, G., see Hayes, L. 27 (1981) 265
- Pinsky, P.M., see Ortiz, M. 36 (1983) 223
- Pinsky, P.M., see Ortiz, M. 39 (1983) 137
- Pironneau, O., see Marrocco, A. 15 (1978) 277

- Pironneau, O., see Bristeau, M.O. 17/18 (1979) 619
- Pironneau, O., see Bristeau, M.O. 51 (1985) 363
- Pironneau, O., see Cardot, B. 87 (1991) 103
- Pironneau, O., see Dean, E.J. 87 (1991) 117
- Pister, K.S., see Vitiello, E. 8 (1976) 277
- Pister, K.S., see Iding, R.H. 4 (1974) 121
- Pister, K.S., see Argyris, J.H. 10 (1977) 199
- Pister, K.S., see Ray, D. 14 (1978) 179
- Pister, K.S., see Hughes, T.J.R. 17/18 (1979) 159
- Pister, K.S., see Balling, R.J. 38 (1983) 237
- Pister, K.S., see Pinsky, P.M. 40 (1983) 137
- Pister, K.S., see Simo, J.C. 46 (1984) 201
- Pister, K.S., see Simo, J.C. 51 (1985) 177
- Pitkäranta, J., see Johnson, C. 45 (1984) 285
- Pitta, M.S., see Ioakimidis, N.I. 69 (1988) 325
- Planchar, J., see Gregoire, J.P. 8 (1976) 201
- Planchar, J., see Conca, C. 75 (1989) 27
- Planchar, J., see Conca, C. 77 (1989) 253
- Planchar, J., see Conca, C. 100 (1992) 295
- Plank, L., see Stein, E. 52 (1985) 873
- Plaskacz, E.J., see Belytschko, T. 81 (1990) 229
- Plaut, R.H., see Shin, Y.S. 70 (1988) 151
- Plemmons, R.J., see Berry, M.W. 64 (1987) 487
- Plesha, M.E., see Malkus, D.S. 59 (1986) 281
- Plesha, M.E., see Malkus, D.S. 68 (1988) 97
- Plesha, M.E., see Qiu, X. 93 (1991) 385
- Pletner, B., see Elishakoff, I. 88 (1991) 299
- Poirier, C., see Mallet, M. 94 (1992) 429
- Poirier, D.R., see Heinrich, J.C. 89 (1991) 435
- Poirier, G., see Bristeau, M.O. 51 (1985) 363
- Polak, E., see Ray, D. 14 (1978) 179
- Polak, E., see Balling, R.J. 38 (1983) 237
- Polizzotto, C., see Kaneko, I. 37 (1983) 185
- Polizzotto, C., see Maier, G. 60 (1987) 175
- Polyzakis, M., see Jami, A. 29 (1981) 1
- Popov, E.P., see Larsen, P.K. 3 (1974) 237
- Popov, E.P., see Kiciman, Ö.K. 13 (1978) 45
- Potier-Ferry, M., see Cochelin, B. 89 (1991) 361
- Povinelli, L.A., see Jiang, B.-N. 81 (1990) 13
- Prager, W., see Absi, E. 6 (1975) 59
- Prager, W., see Rozvany, G.I.N. 19 (1979) 127
- Prakash, V., see Karamanlidis, D. 72 (1989) 77
- Prasad, U.S., see Ewing, R.E. 64 (1987) 137
- Prathap, G., see Naganarayana, B.P. 97 (1992) 355
- Prevost, J.H., see Loret, B. 54 (1986) 259
- Prevost, J.H., see Peirce, A. 57 (1986) 171
- Prevost, J.H., see Loret, B. 83 (1990) 247
- Provatidis, C., see Kanarachos, A. 63 (1987) 155
- Provatidis, C., see Kanarachos, A. 71 (1988) 151
- Punch, E.F., see Rubinstein, R. 38 (1983) 63
- Puranik, S.S., see Bhargava, R.D. 21 (1980) 63
- Puranik, S., see Bhargava, R.D. 23 (1980) 281
- Puri, S.B., see Dey, S.S. 31 (1982) 239
- Qian, H., see Luo, S.J. 27 (1981) 129
- Qian, J., see Wang, X.-X. 86 (1991) 73
- Qinghua, Q., see Yuying, H. 100 (1992) 315
- Qiu, C., see Zhong, W. 38 (1983) 1
- Qiu, X., see Malkus, D.S. 66 (1988) 365
- Quaranta, H.O., see Eterovic, J.E. 53 (1985) 91
- Quartapelle, L., see Donea, J. 30 (1982) 53
- Quartapelle, L., see Donea, J. 45 (1984) 123
- Quartapelle, L., see Selmin, V. 52 (1985) 817
- Quartapelle, L., see Donea, J. 95 (1992) 169
- Quarteroni, A., see Battarra, V. 48 (1985) 329
- Quarteroni, A., see Gastaldi, F. 80 (1990) 347
- Quigley, J.J., see Ortiz, M. 90 (1991) 781
- Quintela-Estevéz, P., see Alvarez-Vazquez, L.J. 96 (1992) 1
- Rachowicz, W., see Dermkowicz, L. 77 (1989) 79
- Rachowicz, W., see Oden, J.T. 77 (1989) 113
- Rachowicz, W., see Oden, J.T. 82 (1990) 183
- Rachowicz, W., see Demkowicz, L. 84 (1990) 275
- Rachowicz, W., see Demkowicz, L. 88 (1991) 363
- Radicati, G., see Succi, S. 75 (1989) 543
- Raffie, A., see Öz, H. 62 (1987) 17
- Rafiinejad, D., see Patankar, S.V. 6 (1975) 283
- Railkar, S.B., see Tamma, K.K. 64 (1987) 415
- Raith, K., see Schöner, W. 28 (1981) 327
- Raithby, G.D., see Stubley, G.D. 35 (1982) 153
- Rajan, S.D., see Belegundu, A.D. 66 (1988) 87
- Ramachandran, S.V., see Srinivasan, R.S. 7 (1976) 219
- Ramakrishna, B.S., see Narayana Dutt, D. 13 (1978) 351
- Ramamoorthy, P., see Sheela, B.V. 6 (1975) 309
- Ramamurty, T.S., see Naganarayana, B.P. 97 (1992) 355
- Ramaswamy, S., see Bathe, K.J. 23 (1980) 313
- Ramshaw, J.D., see Hirt, C.W. 14 (1978) 93
- Randriamampianina, A., see Chaouche, A. 80 (1990) 237
- Rankin, C.C., see Nour-Omid, B. 93 (1991) 353

- Rao, K.P., see Venkatesh, A. 38 (1983) 255  
 Rao, K.P., see Holla, V.S. 44 (1984) 1  
 Rarig, P.L., see Noor, A.K. 3 (1974) 319  
 Rasmussen, H., see Forsyth Jr., P. 23 (1980) 129  
 Rasmussen, J., see Olhoff, N. 89 (1991) 259  
 Rath, A., see Distefano, N. 5 (1975) 353  
 Rath, A., see Distefano, N. 6 (1975) 219  
 Raviart, P.-A., see Ciarlet, P.G. 1 (1972) 217  
 Raviart, P.-A., see Ciarlet, P.G. 2 (1973) 17  
 Raviart, P.-A., see Adam, J.C. 22 (1980) 327  
 Ray, S.E., see Tezduyar, T.E. 95 (1992) 221  
 Ray, S.E., see Tezduyar, T.E. 99 (1992) 27  
 Reddy, B.D., see Duffett, G. 41 (1983) 105  
 Reddy, B.D., see Duffett, G.A. 59 (1986) 179  
 Reddy, J.N., see Putcha, N.S. 44 (1984) 213  
 Reddy, J.N., see Reddy, M.P. 100 (1992) 169  
 Reyna, L., see Goodman, J. 57 (1986) 107  
 Reynen, J., see Nguyen, H. 42 (1984) 331  
 Rheinboldt, W.C., see Babuška, I. 17/18 (1979) 519  
 Rheinboldt, W.C., see Babuška, I. 34 (1982) 895  
 Rhyming, I.L., see Bottaro, A. 89 (1991) 41  
 Ribando, R.J., see Heuser, G.E. 57 (1986) 207  
 Ribando, R.J., see Frederick, J.W. 93 (1991) 401  
 Rice, J.R., see Nagtegaal, J.C. 4 (1974) 153  
 Richmond, O., see Zabarar, N. 81 (1990) 333  
 Rick, C.C., see Evans, D.J. 22 (1980) 309  
 Rideau, P., see Garnier, C. 75 (1989) 215  
 Rifai, M.S., see Simo, J.C. 73 (1989) 53  
 Rifai, M.S., see Simo, J.C. 79 (1990) 21  
 Rifai, M.S., see Simo, J.C. 81 (1990) 91  
 Riks, E., see Besseling, J.F. 17/18 (1979) 131  
 Rimrott, F.P.J., see Guran, A. 76 (1989) 157  
 Rivkin, L., see Givoli, D. 93 (1991) 111  
 Rizzo, F.J., see Rezayat, M. 55 (1986) 349  
 Rizzo, F.J., see Liu, Y. 96 (1992) 271  
 Rizzo, T., see Haftka, R.T. 60 (1987) 289  
 Robert, Y., see Succi, S. 75 (1989) 543  
 Robertson, S.J., see Thoenes, J. 51 (1985) 495  
 Rodi, W., see Glass, J. 31 (1982) 337  
 Rodi, W., see Zhu, J. 92 (1991) 87  
 Rodrigues, H.C., see Bendsøe, M.P. 87 (1991) 15  
 Rogé, G., see Brezzi, F. 96 (1992) 117  
 Rogers, R.C., see Drummond, J.P. 64 (1987) 39  
 Rolfes, R., see Stein, E. 84 (1990) 77  
 Rønquist, E.M., see Ho, L.-W. 80 (1990) 65  
 Rønquist, E.M., see Maday, Y. 80 (1990) 91  
 Rønquist, E.M., see Anagnostou, G. 97 (1992) 33  
 Rosanoff, R.A., see Argyris, J.H. 7 (1976) 261  
 Rosati, M., see Geymonat, G. 75 (1989) 39  
 Rosenberg, J., see Hlaváček, I. 94 (1992) 93  
 Rosier, C., see Jauberteau, F. 80 (1990) 245  
 Rousseau, A., see Arminjon, P. 49 (1985) 17  
 Roy, J.R., see Von Fuchs, G. 1 (1972) 197  
 Roy, J.R., see Johnsen, T.L. 3 (1974) 357  
 Roy, J.R., see Argyris, J.H. 7 (1976) 261  
 Rozvany, G.I.N., see Hill, R.D. 49 (1985) 131  
 Rozvany, G.I.N., see Ong, T.-G. 66 (1988) 301  
 Rozvany, G.I.N., see Zhou, M. 89 (1991) 309  
 Ruan, Y., see Zabarar, N. 81 (1990) 333  
 Ruas, V., see Le Tallec, P. 54 (1986) 235  
 Rubin, M.B., see Luehr, C.P. 84 (1990) 243  
 Rudowski, K., see Osiadacz, A.J. 65 (1987) 201  
 Russell, T.F., see Ewing, R.E. 47 (1984) 73  
 Russell, W.C., see Noor, A.K. 57 (1986) 257  
 Russo, A., see Brezzi, F. 73 (1989) 317  
 Russo, G., see Di Blasi, C. 75 (1989) 481  
 Russo, G., see Di Blasi, C. 90 (1991) 643  
 Ryland, G., see Padovan, J. 79 (1990) 113  
 Rys, F.S., see Bottaro, A. 89 (1991) 41  
 Rys, P., see Bottaro, A. 89 (1991) 41  
 Ryzynski, W., see Desai, C.S. 62 (1987) 155  
 Sabag, M., see Greenberg, J.B. 70 (1988) 91  
 Sacchi, G., see Chinosi, C. 80 (1990) 327  
 Sacchi Landriani, G., see Gastaldi, F. 80 (1990) 347  
 Sackman, J.L., see Hughes, T.J.R. 8 (1976) 249  
 Safar, Y.A., see Fawzi, T.H. 60 (1987) 343  
 Sahimi, M.S., see Evans, D.J. 84 (1990) 15  
 Saigal, S., see Kane, J.H. 79 (1990) 219  
 Salaam, U., see Sandhu, R.S. 7 (1976) 75  
 Saleeb, A.F., see Chang, T.Y. 73 (1989) 259  
 Saltel, E., see George, P.L. 92 (1990) 269  
 Samartin, A., see Distefano, N. 5 (1975) 37  
 Sander, G., see Carnoy, E. 32 (1982) 329  
 Sander, G., see Fleury, C. 37 (1983) 249  
 Sankar, L.N., see Sotomayer, W.A. 64 (1987) 237  
 Sankar, T.S., see Fabrikant, V. 29 (1981) 19  
 Sanz-Serna, J.M., see Christie, I. 44 (1984) 229  
 Sanz-Serna, J.M., see De Frutos, J. 80 (1990) 417  
 Saotome, H., see Saito, Y. 38 (1983) 185  
 Saotome, H., see Saito, Y. 49 (1985) 109  
 Sartoretto, F., see Gambolati, G. 94 (1992) 13

- Sathyamoorthy, M., see Boston, D.R. 57 (1986) 17
- Sawamiphakdi, K., see Chang, T.Y. 32 (1982) 311
- Sawczuk, A., see Kleiber, M. 33 (1982) 487
- Sawczuk, A., see Andreanus, U. 39 (1983) 21
- Scapolla, T., see Chinosi, C. 80 (1990) 327
- Schapery, R.A., see Tielking, J.T. 26 (1981) 181
- Scharpf, D.W., see Argyris, J.H. 1 (1972) 81
- Scharpf, D.W., see Argyris, J.H. 14 (1978) 401
- Scharpf, D.W., see Argyris, J.H. 15 (1978) 99
- Scharpf, D.W., see Argyris, J.H. 17/18 (1979) 1
- Scharpf, D.W., see Argyris, J.H. 20 (1979) 105
- Schatz, A.H., see Bramble, J.H. 67 (1988) 149
- Scheideler, W., see Siekmann, J. 28 (1981) 103
- Schelkle, E., see Argyris, J.H. 10 (1977) 371
- Schelkle, E., see Argyris, J.H. 11 (1977) 97
- Schiff, B., see Rippa, S. 84 (1990) 257
- Schmidt, W., see Jameson, A. 51 (1985) 467
- Schnipke, R.J., see Rice, J.G. 48 (1985) 313
- Schnipke, R.J., see Rice, J.G. 58 (1986) 135
- Schnurr, N.M., see Gray, W.H. 6 (1975) 243
- Schönung, B. see Rodi, W. 75 (1989) 369
- Schrade, H.O., see Gogel, T.H. 89 (1990) 425
- Schrem, E., see Von Fuchs, G. 1 (1972) 197
- Schreyer, H.L., see Chen, Z. 90 (1991) 869
- Schultz, D., see Greenspan, D. 3 (1974) 1
- Schweitzer, U., see Niethammer, W. 5 (1975) 239
- Schwenn, U., see Gruber, R. 91 (1991) 1135
- Scott, R.A., see Lee, M.S. 72 (1989) 29
- Seager, M.K., see Carey, G.F. 50 (1985) 107
- Seebass, A.R., see Hassan, A.A. 58 (1986) 285
- Segre, J., see Rogier, F. 94 (1992) 1
- Selmin, V., see Billey, V. 75 (1989) 409
- Semenzato, S., see Gruber, R. 52 (1985) 675
- Semsarzadeh, G.A., see Shore, S. 5 (1975) 197
- Seong, H.G., see Choi, K.K. 57 (1986) 1
- Sepehmoori, K., see Carey, G.F. 22 (1980) 23
- Serna, M.A., see Bayo, E. 71 (1988) 183
- Shabana, A.A., see Changizi, K. 54 (1986) 93
- Shabana, A.A., see Agrawal, O.P. 56 (1986) 217
- Shakib, F., see Johan, Z. 87 (1991) 281
- Shakib, F., see Mallet, M. 94 (1992) 429
- Shamroth, S.J., see Kreskovsky, J.P. 11 (1977) 39
- Shamroth, S.J., see Kreskovsky, J.P. 13 (1978) 307
- Shanehchi, J., see Evans, D.J. 31 (1982) 251
- Shapeev, V.P., see Fomin, V.M. 32 (1982) 157
- Sharma, D., see Curr, R.M. 1 (1972) 143
- Sharma, K.G., see Desai, C.S. 82 (1990) 115
- Shaw, R.H.H., see Anand, S.C. 15 (1978) 1
- Sheikholeslami, M.Z. see Chen, C.J. 75 (1989) 61
- Shen, J., see Ewing, R.E. 89 (1991) 73
- Shen, Y., see Carey, G.F. 93 (1991) 1
- Shen, Y.-W., see Liu, G. 96 (1992) 109
- Shephard, M.S., see Benantar, M. 82 (1990) 73
- Shestopal, O.Y., see Shestopal, V.O. 25 (1981) 85
- Sheu, M.J., see Chen, D.R. 68 (1988) 345
- Sheu, M.J., see Chen, D.R. 74 (1989) 55
- Sheu, M.J., see Chen, C.P. 98 (1992) 251
- Shih, C.F., see Needleman, A. 15 (1978) 223
- Shih, R., see Tezduyar, T.E. 87 (1991) 363
- Shih, R., see Tezduyar, T.E. 95 (1992) 221
- Shindo, A., see Tomita, Y. 35 (1982) 207
- Shippy, D.J., see Rezayat, M. 55 (1986) 349
- Shippy, D.J., see Kondapalli, P.S. 96 (1992) 255
- Shir, C.C., see Langlois, W.E. 12 (1977) 145
- Shou, W., see Zhu, P. 26 (1981) 305
- Shunmugam, M.S., see Dhanish, P.B. 92 (1991) 309
- Sideridis, A., see Levin, D. 12 (1977) 201
- Silvennoinen, R., see Koski, J. 31 (1982) 265
- Simo, J.C., see Fox, D.D. 98 (1992) 329
- Singh, A.P., see Jaluria, Y. 41 (1983) 145
- Singh, K.J., see Sandhu, R.S. 14 (1978) 23
- Singhal, K., see Jain, N.K. 40 (1983) 277
- Siu, A.L.-W., see Pollard, A. 35 (1982) 293
- Skerget, P., see Alujevic, A. 91 (1991) 1187
- Sleziona, P.C., see Gogel, T.H. 89 (1991) 425
- Slonim, M.A., see Kremer, Z. 72 (1989) 1
- Sluys, L.J., see De Borst, R. 90 (1991) 805
- Smith, F.W., see Girrens, S.P. 62 (1987) 209
- Smith, L., see Arminjon, P. 100 (1992) 149
- Smolinski, P., see Donea, J. 48 (1985) 25
- Smolinski, P., see Belytschko, T. 49 (1985) 281
- Sobh, N., see Farhat, C. 84 (1990) 147
- Sobieczky, H., see Hassan, A.A. 58 (1986) 285
- Soler, A.I., see Hutchins, G.J. 1 (1972) 307
- Soler, A., see Barrett, D. 25 (1981) 299
- Soliman, M.O., see Baker, A.J. 27 (1981) 215
- Song, Y.J., see Oden, J.T. 31 (1982) 297
- Sonnad, V., see King, R.B. 65 (1987) 47
- Sørreide, T., see Bergan, P.G. 2 (1973) 185

- Sorensen, E.P., see Rice, J.R. 17/18 (1979) 411
- Soubbaramayer, see Lahargue, J.P. 15 (1978) 259
- Spalding, D.B., see Caretto, L.S. 1 (1972) 39
- Spalding, D.B., see Launder, B.E. 3 (1974) 269
- Spalding, D.B., see Patankar, S.V. 6 (1975) 283
- Spalding, D.B., see Pollard, A. 13 (1978) 293
- Spalding, D.B., see Markatos, N.C.G. 15 (1978) 161
- Spalding, D.B., see Singhal, A.K. 25 (1981) 365
- Spekreijse, S.P., see Boerstoeel, J.W. 89 (1991) 237
- Spiliopoulos, K.V., see Chan, A.S.L. 60 (1987) 257
- Spradley, L.W., see Thoenes, J. 51 (1985) 495
- Sreekanth, A.K., see Dutt, H.N.V. 19 (1979) 417
- Sreekanth, A.K., see Dutt, H.N.V. 23 (1980) 355
- Srinivas, K., see Fletcher, C.A.J. 41 (1983) 297
- Srinivas, K., see Fletcher, C.A.J. 46 (1984) 313
- Srivastava, N.K., see Patnaik, S.N. 9 (1976) 245
- Srivatsa, S.K., see Rodi, W. 23 (1980) 67
- Stafford, R.O., see Kelly, D.W. 12 (1977) 219
- Stavski, Y., see Greenberg, J.B. 70 (1988) 91
- Stavsky, Y., see Givoli, D. 96 (1992) 45
- Steenkamp, M.C., see Quick, R.M. 48 (1985) 301
- Steenstrup, S., see Sjøntoft, E. 21 (1980) 357
- Stein, E., see Plank, L. 82 (1990) 223
- Stein, L.R., see Hirt, C.W. 14 (1978) 93
- Stephan, E.P., see Babuška, I. 80 (1990) 319
- Stephan, E.P., see Postell, F.V. 83 (1990) 69
- Stewart, I.B., see Webber, J.P.H. 92 (1991) 325
- Stolarski, H., see Belytschko, T. 51 (1985) 221
- Stone, J.A.R., see Raggett, G.F. 4 (1974) 39
- Stone, J.A.R., see Raggett, G.F. 8 (1976) 139
- Storti, M.A., see Baumann, C.E. 95 (1992) 49
- Stoufflet, B., see Billey, V. 75 (1989) 409
- Strada, M., see Lewis, R.W. 20 (1979) 291
- Strang, G., see Nickell, R.E. 17/18 (1979) 561
- Straub, K., see Argyris, J.H. 28 (1981) 241
- Straub, K., see Argyris, J.H. 32 (1982) 59
- Street, R.L., see Meakin, R.L. 68 (1988) 151
- Street, R.L., see Meakin, R.L. 68 (1988) 311
- Streiner, P., see König, M. 16 (1978) 185
- Strong, A.B., see Stubley, G.D. 35 (1982) 153
- Strouboulis, T., see Demkowicz, L. 46 (1984) 217
- Strouboulis, T., see Oden, J.T. 59 (1986) 327
- Strouboulis, T., see Devloo, P. 61 (1987) 339
- Subramanyam, G.S., see Jain, M.K. 42 (1984) 273
- Sudarsan, V.R., see Batra, R.L. 95 (1992) 1
- Sui, Y., see Qian, L.x. 30 (1982) 209
- Sunderland, J.E., see Zografos, A.I. 61 (1987) 177
- Sur, U., see Liu, N. 84 (1990) 211
- Suri, M., see Babuška, I. 80 (1990) 5
- Suri, M., see Jensen, S. 97 (1992) 233
- Svoboda, M., see Balasubramanian, B. 89 (1991) 337
- Symeonidis, S., see Argyris, J.H. 26 (1981) 75
- Symeonidis, S., see Argyris, J.H. 26 (1981) 377
- Symeonidis, S., see Argyris, J.H. 28 (1981) 241
- Symeonidis, S., see Argyris, J.H. 32 (1982) 59
- Symm, G.T., see Papamichael, N. 6 (1975) 175
- Szabo, B.A., see Peano, A.G. 16 (1978) 69
- Szepessy, A., see Hansbo, P. 84 (1990) 175
- Szeto, W.-T., see Ong, T.-G. 66 (1988) 301
- Szimmat, J., see Argyris, J.H. 10 (1977) 199
- Szimmat, J., see Argyris, J.H. 33 (1982) 635
- Szimmat, J., see Argyris, J. 94 (1992) 155
- Szimmat, J., see Argyris, J. 94 (1992) 181
- Szmelter, J., see Zienkiewicz, O.C. 78 (1990) 105
- Szmidt, K., see Wilde, P. 36 (1983) 1
- Szymczak, W.G., see Babuška, I. 31 (1982) 19
- Tabarrok, B., see Heng, Z. 54 (1986) 187
- Tabbarok, B., see Rajpal, S.D.O. 62 (1987) 245
- Taddei, F., see Maier, G. 17/18 (1979) 469
- Takahashi, Y., see Yagawa, G. 51 (1985) 51
- Take, T., see Kida, T. 36 (1983) 127
- Take, T., see Kida, T. 36 (1983) 191
- Tan, H.S., see Meek, J.L. 43 (1984) 181
- Tan, H.S., see Meek, J.L. 47 (1984) 261
- Tan, H.S., see Meek, J.L. 57 (1986) 143
- Tanaka, M., see Kikuta, M. 62 (1987) 321
- Tang, J., see Elishakoff, I. 68 (1988) 229
- Tanguy, P., see Fortin, A. 58 (1986) 337
- Tanguy, P.A., see Fauchon, D. 70 (1988) 139
- Tanguy, P.A., see Robichaud, M.P. 75 (1989) 359
- Tanguy, P.A., see Hurez, P. 86 (1991) 87
- Tanguy, P.A., see Fortin, A. 88 (1991) 97
- Tanguy, P.A., see Grygiel, J.-M. 93 (1991) 277
- Tanner, J.A., see Noor, A.K. 63 (1987) 37
- Tarnow, N., see Simo, J.C. 100 (1992) 63
- Tatchell, D.G., see Curr, R.M. 1 (1972) 143
- Tatchell, D.G., see Markatos, N.C.G. 15 (1978) 161
- Taylor, C., see Morgan, K. 19 (1979) 117



- Taylor, J.E., see Diaz, A.R. 41 (1983) 29  
 Taylor, J.E., see Kikuchi, N. 57 (1986) 67  
 Taylor, L.M., see Hibbitt, H.D. 17/18 (1979) 203  
 Taylor, L.M., see Flanagan, D.P. 62 (1987) 305  
 Taylor, R.L., see Goudreau, G.L. 2 (1973) 69  
 Taylor, R.L., see Iding, R.H. 4 (1974) 121  
 Taylor, R.L., see Hughes, T.J.R. 8 (1976) 249  
 Taylor, R.L., see Hughes, T.J.R. 17/18 (1979) 159  
 Taylor, R.L., see Simo, J.C. 35 (1982) 107  
 Taylor, R.L., see Ortiz, M. 36 (1983) 223  
 Taylor, R.L., see Ortiz, M. 39 (1983) 137  
 Taylor, R.L., see Simo, J.C. 42 (1984) 301  
 Taylor, R.L., see Simo, J.C. 48 (1985) 101  
 Taylor, R.L., see Simo, J.C. 50 (1985) 163  
 Taylor, R.L., see Simo, J.C. 51 (1985) 177  
 Taylor, R.L., see Simo, J.C. 74 (1989) 177  
 Taylor, R.L., see Weissmann, S.L. 79 (1990) 321  
 Taylor, R.L., see Weissman, S.L. 85 (1991) 39  
 Taylor, R.L., see Simo, J.C. 85 (1991) 273  
 Taylor, R.L., see Papadopoulos, P. 94 (1992) 373  
 Taylor, R.L., see Weissman, S.L. 94 (1992) 391  
 Taylor, R.L., see Weissman, S.L. 98 (1992) 127  
 Taylor, T.D., see Holt, M. 16 (1978) 281  
 Taylor, T.D., see Ku, H.-C. 75 (1989) 141  
 Taylor, T.D., see Ku, H.C. 80 (1990) 381  
 Telste, J., see Ohring, S. 21 (1980) 315  
 Temam, R., see Jauberteau, F. 80 (1990) 245  
 Templeman, A.B., see Yates, D.F. 37 (1983) 37  
 Tessler, A., see Fried, I. 56 (1986) 283  
 Tezduyar, T.E., see Hughes, T.J.R. 45 (1984) 217  
 Tezduyar, T.E., see Ganjoo, D.K. 65 (1987) 61  
 Tezduyar, T.E., see Ganjoo, D.K. 75 (1989) 515  
 Tezduyar, T., see Pironneau, O. 100 (1992) 117  
 Theocaris, P.S., see Tsamasphyros, G. 31 (1982) 79  
 Theoharis, A.P., see Papadarakakis, M. 88 (1991) 165  
 Theotokoglou, E.E., see Theocaris, P.S. 31 (1982) 117  
 Thomas, J.M., see Amara, M. 39 (1983) 1  
 Thomas, H.R., see Lewis, R.W. 20 (1979) 291  
 Thompson, J.M.T., see Foale, S. 89 (1991) 381  
 Thornton, E.A., see Tworzydło, W.W. 95 (1992) 397  
 Thyagaraja, A., see Pollard, A. 19 (1979) 107  
 Tietze, P., see Siekmann, J. 28 (1981) 103  
 Tin-Loi, F., see Wakefield, R.R. 84 (1990) 229  
 Ting, T.C.T., see Lee, E.H. 5 (1975) 69  
 Togoh, H., see Kikuta, M. 62 (1987) 321  
 Tolikas, D., see Latinopoulos, P. 23 (1980) 215  
 Tolley, M., see Descoux, J. 39 (1983) 37  
 Torigaki, T., see Kikuchi, N. 57 (1986) 67  
 Torzicky, P., see Li, H.-B. 54 (1986) 161  
 Tosaka, N., see Kondo, N. 93 (1991) 169  
 Touzani, R., see Caussignac, P. 78 (1990) 249  
 Touzani, R., see Caussignac, P. 79 (1990) 1  
 Townsend, P., see Tamaddon-Jahromi, H.R. 95 (1992) 301  
 Toyoshima, S., see Zienkiewicz, O.C. 51 (1985) 3  
 Tralli, A., see Alliney, S. 46 (1984) 177  
 Tralli, A., see Alliney, S. 51 (1985) 209  
 Tranberg, C.H., see Swannell, P. 16 (1978) 291  
 Trbojevic, V.M., see Chan, A.S.L. 9 (1976) 337  
 Trbojevic, V.M., see Chan, A.S.L. 10 (1977) 75  
 Trefethen, L.N., see Reddy, S.C. 80 (1990) 147  
 Tripp, J., see Fung, K.-Y. 66 (1988) 1  
 Troina, L.M., see Coutinho, A.L.G.A. 84 (1990) 129  
 Tsamasphyros, G., see Theocaris, P.S. 31 (1982) 117  
 Tsay, C.S., see Belytschko, T. 29 (1981) 313  
 Tsay, C.-S., see Belytschko, T. 42 (1984) 225  
 Tsuci, Y.G., see Nilson, R.H. 6 (1975) 265  
 Tsuya, N., see Saito, Y. 49 (1985) 109  
 Turcke, D.J., see Tang, J.W. 11 (1977) 31  
 Turgeman, S., see Bottero, A. 22 (1980) 131  
 Twizell, E.H., see Khaliq, A.Q.M. 43 (1984) 45  
 Ula, N., see Nouh, A. 36 (1983) 147  
 Unda, J., see García de Jalón, J. 56 (1986) 309  
 Underwood, P.G., see Park, K.C. 23 (1980) 259  
 Uras, R.A., see Liu, W.K. 53 (1985) 13  
 Uras, R.A., see Bachrach, W.E. 55 (1986) 43  
 Urban, J., see Argyris, J. 89 (1991) 85  
 Utku, M., see Carey, G.F. 30 (1982) 151  
 Utku, S., see Salama, M. 10 (1977) 325  
 Utku, S., see Ramesh, A.V. 90 (1991) 761  
 Vaclavik, J., see Succi, S. 75 (1989) 543  
 Vahdani, B., see Wellford Jr., L.C. 26 (1981) 33  
 Valente, V., see Geymonat, G. 75 (1989) 39  
 Van Der Werff, see Besseling, J.F. 17/18 (1979) 131  
 Vanden Brink, D.J., see Kamat, M.P. 26 (1981) 363  
 Vanninathan, M., see Conca, C. 69 (1988) 215  
 Vanninathan, M., see Conca, C. 75 (1989) 27

- Vanninathan, M., see Conca, C. 77 (1989) 253  
 Vaz, L.E., see Argyris, J.H. 12 (1977) 243  
 Vaz, L.E., see Argyris, J.H. 16 (1978) 231  
 Vaz, L.E., see Argyris, J.H. 17/18 (1979) 341  
 Veldpaus, F.E., see Schreurs, P.J.G. 58 (1986) 19  
 Venkateswara Rao, G., see Raju, P.C. 15 (1978) 201  
 Venter, A., see Yavin, Y. 28 (1981) 129  
 Vibet, C., see Cotsaftis, M. 74 (1989) 29  
 Vibet, C., see Charbonneau, G. 98 (1992) 23  
 Vidrascu, M., see De Roeck, Y.-H. 99 (1992) 187  
 Vilotte, J.P., see Zienkiewicz, O.C. 51 (1985) 3  
 Vinarnick, S., see Charbonneau, G. 98 (1992) 23  
 Vinatier, M.C., see Bellet, D. 63 (1987) 167  
 Vlachos, N., see Markatos, N.-C.G. 15 (1978) 161  
 Vlachos, N.S., see Samagaio, A. 75 (1989) 393  
 Volpi, M.B., see Reddy, B.D. 97 (1992) 125  
 Vorozhtsov, E.V., see Yanenko, N.N. 17/18 (1979) 659  
 Vos, J.B., see Bergman, C.M. 89 (1991) 523  
 Voss, D.A., see Mastro, R.A. 25 (1981) 129  
 Vu-Quoc, L., see Simo, J.C. 58 (1986) 79  
 Vu-Quoc, L., see Simo, J.C. 66 (1988) 125  
 Wada, B.K., see Ramesh, A.V. 90 (1991) 761  
 Wagner, W., see Wriggers, P. 70 (1988) 329  
 Wah, T., see Subrahmanyam, M.B. 43 (1984) 315  
 Wahlbin, L.B., see Dupont, T.F. 45 (1984) 167  
 Wait, R., see Hopkins, T.R. 9 (1976) 181  
 Wait, R., see Hopkins, T.R. 19 (1979) 401  
 Wallrapp, O., see Fuehrer, C. 46 (1984) 169  
 Walton, J.R., see Warby, M.K. 97 (1992) 375  
 Wang, C.-M., see Rozvany, G.I.N. 31 (1982) 91  
 Wang, D.Q., see Luo, S.J. 27 (1981) 129  
 Wang, J.F., see Wu, S.T. 64 (1987) 267  
 Wang, J., see Ewing, R.E. 89 (1991) 73  
 Wang, S., see Fitzsimons, C.J. 84 (1990) 43  
 Wang, W.-F., see Pan, N.-Q. 37 (1983) 1  
 Ward, P., see Hitchings, D. 9 (1976) 191  
 Ward, T.J.W., see Harrison, D. 34 (1982) 1019  
 Waszczyszyn, Z., see Radwańska, M. 23 (1980) 341  
 Wathen, A.J., see Lee, H.-C. 92 (1991) 215  
 Wathugala, G.W., see Desai, C.S. 82 (1990) 115  
 Watkins, A.P., see Ahmadi-Befrui, B. 79 (1990) 249  
 Watson, J.O., see Lachat, J.C. 10 (1977) 273  
 Watson, L.T., see Kamat, M.P. 26 (1981) 363  
 Watson, L.T., see Haftka, R.T. 60 (1987) 289  
 Watson, L.T., see Shin, Y.S. 70 (1988) 151  
 Webel, H., see Rosanoff, R.A. 7 (1976) 369  
 Weber, R., see Brauchli, H. 91 (1991) 1403  
 Webster, M.F., see Tamaddon-Jahromi, H.R. 95 (1992) 301  
 Wehrli, M.B., see Bottaro, A. 89 (1991) 41  
 Weifang, Z., see Yuying, H. 100 (1992) 315  
 Weiser, A., see Sanders, R. 75 (1989) 91  
 Weisstein, L.S., see Noor, A.K. 25 (1981) 179  
 Weitsman, Y., see Aboudi, J. 4 (1974) 349  
 Welfert, B.D., see Bank, R.E. 82 (1990) 323  
 Welfert, B.D., see Bank, R.E. 83 (1990) 61  
 Wellford Jr., L.C., see Vahdani, B. 66 (1988) 221  
 Wempner, G., see Talaslidis, D. 34 (1982) 1051  
 Wendland, W.L., see Stephan, E. 36 (1983) 331  
 Werner, H., see Rank, E. 30 (1982) 95  
 Westermann, T.A., see Oden, J.T. 77 (1989) 113  
 Westermann, T.A., see Oden, J.T. 82 (1990) 183  
 Wheeler, M.F., see Ewing, R.E. 47 (1984) 73  
 Wheeler, M.F., see Douglas, Jr., J. 47 (1984) 119  
 Wheeler, M.F., see Douglas, Jr., J. 47 (1984) 131  
 Wheeler, M.F., see Cowsar, L.C. 82 (1990) 205  
 Whiteman, J.R., see Harrison, D. 34 (1982) 1019  
 Whiteman, J.R., see Warby, M.K. 68 (1988) 33  
 Whiteman, J.R., see Hlaváček, I. 94 (1992) 93  
 Whiteman, J.R., see Warby, M.K. 97 (1992) 375  
 Wibbeler, H., see Meissner, U. 85 (1991) 89  
 Willam, K.J., see Argyris, J.H. 8 (1976) 215  
 Willam, K.J., see Argyris, J.H. 10 (1977) 199  
 Willam, K.J., see Argyris, J.H. 12 (1977) 243  
 Willam, K.J., see Argyris, J.H. 16 (1978) 231  
 Willam, K.J., see Argyris, J.H. 17/18 (1979) 341  
 Willam, K.J., see Argyris, J.H. 33 (1982) 635  
 Willam, K., see Steinmann, P. 90 (1991) 845  
 Williams, P.G., see Cebeci, T. 27 (1981) 13  
 Willmert, K.D., see Boston, D.R. 57 (1986) 17  
 Wills, C.B., see Markatos, N.-C.G. 29 (1981) 175  
 Wills, J., see Crisfield, M.A. 66 (1988) 267  
 Wilson, D.E., see Kiehne, T.M. 83 (1990) 9  
 Wilson, E.L., see Clough, R.W. 17/18 (1979) 107  
 Wilson, J.L., see Shore, S. 5 (1975) 197  
 Wilson, P.D., see Raggett, G.F. 4 (1974) 39  
 Wilton, D.T., see Amini, S. 54 (1986) 49  
 Wimp, J., see Fair, W. 11 (1977) 207  
 Winget, J., see Hughes, T.J.R. 36 (1983) 241  
 Wisher, S.J., see Raggett, G.F. 8 (1976) 139  
 Witchev, R.D., see Bailey, C.D. 42 (1984) 71  
 Wolf, J.P., see Chan, A.S.L. 13 (1978) 1

- Wong, B.L., see Belytschko, T. 96 (1992) 93
- Wong, C., see Murray, D.W. 23 (1980) 35
- Wong, K.K., see Simo, J.C. 100 (1992) 63
- Wong, K.-L., see Lee, S.-C. 50 (1985) 147
- Wong, K.-L., see Chen, C.-K. 59 (1986) 73
- Wong, M.B., see Tin-Loi, F. 72 (1989) 351
- Woo, L., see Desai, C.S. 82 (1990) 115
- Wood III, H.G., see Gunzburger, M.D. 31 (1982) 43
- Wood, III, H.G., see Heuser, G.E. 57 (1986) 207
- Wood III, H.G., see Babarsky, R.J. 81 (1990) 317
- Wood, H.G., see Frederick, J.W. 93 (1991) 401
- Woodbury, A.D., see Nour-Ohmid, B. 88 (1991) 75
- Woolner, K.A., see Stubley, G.D. 35 (1982) 153
- Wray, A.A., see Degani, D. 25 (1981) 11
- Wriggers, P., see Stein, E. 34 (1982) 861
- Wriggers, P., see Simo, J.C. 50 (1985) 163
- Wriggers, P., see Nour-Omid, B. 54 (1986) 131
- Wriggers, P., see Schweizerhof, K.H. 59 (1986) 261
- Wu, C.H., see Fitzsimons, C.J. 84 (1990) 43
- Wüstenberg, H., see Argyris, J.H. 32 (1982) 3
- Wüstenberg, H., see Argyris, J.H. 45 (1984) 3
- Wüstenberg, H., see Argyris, J.H. 51 (1985) 289
- Wüthrich, S., see Sawley, M.L. 89 (1991) 129
- Xanthis, L.S., see Atkinson, C. 29 (1981) 35
- Xu, J., see Tabarrok, T. 63 (1987) 1
- Xu, S.-J., see Pan, N.-Q. 37 (1983) 1
- Xu, Y.-L., see Achenbach, J.D. 70 (1988) 191
- Yadagiri, S., see Patnaik, S.N. 16 (1978) 213
- Yakoumidakis, M., see Papadarakis, M. 62 (1987) 195
- Yamada, Y., see Okabe, M. 23 (1980) 85
- Yamada, Y., see Okabe, M. 23 (1980) 369
- Yamamura, T., see Saito, Y. 38 (1983) 185
- Yanenko, N.N., see Kovaljov, O.B. 22 (1980) 259
- Yanenko, N.N., see Fomin, V.M. 32 (1982) 157
- Yang, R.J., see Barone, M.R. 74 (1989) 69
- Yang, W.H., see Lee, E.H. 5 (1975) 69
- Yang, W.H., see Lee, E.H. 10 (1977) 339
- Yang, W.H., see Watson, L. 15 (1978) 353
- Yang, W.H., see O'Leary, D.P. 16 (1978) 361
- Yankelevsky, D.Z., see Adin, M.A. 49 (1985) 319
- Yao, T., see Ueda, Y. 34 (1982) 1089
- Yardeni, D., see Kaplan, B.Z. 63 (1987) 305
- Yavin, Y., see Friedman, M. 8 (1976) 349
- Yavin, Y., see Friedman, M. 16 (1978) 37
- Yavin, Y., see Huisman, W.C. 21 (1980) 171
- Yeh, P.-W., see Brown, R.A. 58 (1986) 201
- Yen, H.-J., see Belytschko, T. 17/18 (1979) 259
- Yerry, M.A., see Shephard, M.S. 55 (1986) 161
- Yi, H., see Tabarrok, B. 70 (1988) 275
- Yimin, B., see Chuanrong, Z. 83 (1990) 99
- Yoon, W.S., see Chung, T.J. 90 (1991) 583
- Yu, C.C., see Heinrich, J.C. 69 (1988) 1
- Yu, C.-S., see Li, Z.-C. 36 (1983) 61
- Yuen, S.W., see Lau, S.L. 91 (1991) 1109
- Yumashev, V.L., see Orlov, I.V. 91 (1991) 1379
- Zacharski, A., see Kleiber, M. 31 (1982) 149
- Zaman, M.M., see Issa, A. 56 (1986) 47
- Zaman, M., see Faruque, M.O. 92 (1991) 75
- Zapryanov, Z., see Christov, C. 22 (1980) 49
- Zavelani, A., see Corradi, L. 3 (1974) 37
- Zavelani, A., see Contro, R. 5 (1975) 127
- Zehrfeld, H.P., see Gruber, R. 52 (1985) 675
- Zhang, J., see Qian, L.x. 30 (1982) 209
- Zhang, Q., see Gao, X. 69 (1988) 45
- Zhang, X.-H., see Shen, K.-Y. 60 (1987) 139
- Zhang, Y.F., see Liu, W.K. 37 (1983) 207
- Zhang, Y.F., see Liu, W.K. 48 (1985) 245
- Zhang, Y.F., see Liu, W.K. 93 (1991) 189
- Zheng Y., see Lewis, R.W. 94 (1992) 63
- Zheng, Y.W., see Luo, S.J. 27 (1981) 129
- Zhong, W., see Qian, L.x. 30 (1982) 209
- Zhou, M., see Rozvany, G.I.N. 89 (1991) 281
- Zhu, F., see Zhou, X. 37 (1983) 277
- Zhu, F.-W., see Cheng, W.-Q. 71 (1988) 31
- Zhu, J.Z., see Zienkiewicz, O.C. 82 (1990) 95
- Zhu, P., see Zhang, W. 96 (1992) 351
- Ziad Saghir, M., see Tabarrok, B. 43 (1984) 81
- Zienkiewicz, O.C., see Löhner, R. 45 (1984) 313
- Zienkiewicz, O.C., see Löhner, R. 51 (1985) 441
- Zienkiewicz, O.C., see Lee, J.H.W. 61 (1987) 359
- Zimmerman, T.K., see Hughes, T.J.R. 29 (1981) 329
- Zimmermann, T., see Dubois-Pèlerin, Y. 98 (1992) 361
- Zinser, W., see Benim, A.C. 51 (1985) 507
- Zinser, W., see Benim, A.C. 57 (1986) 223
- Zolésio, J.-P., see Delfour, M. 50 (1985) 231
- Zuchowizkii, S., see Bogomolnii, A. 15 (1978) 149

## List of Special Issues of Volumes 1-100

FENOMECH '78, Proceedings of the International Conference on Finite Elements in Nonlinear Mechanics	Volumes 17-18
FENOMECH '81, Proceedings of the 2nd International Conference on Finite Elements in Nonlinear Mechanics	Volumes 32-34
Optimal Finite Elements Methods for Fluid Dynamics and Nonsymmetric Operator Problems	Volume 45
Oil Reservoir Simulation	Volume 47, Nos. 1-2
FENOMECH '84, Proceedings of the 3rd International Conference on Finite Elements in Nonlinear Mechanics	Volumes 51-52
Adaptive Methods	Volume 55, Nos. 1-2
Proceedings of the First World Congress on Computational Mechanics	Volume 64
Proceedings of the Eighth International Conference on Computing Methods in Applied Sciences and Engineering	Volume 75
Spectral and High Order Methods for Partial Differential Equation, Proceedings of the ICOSAHOM'89 Conference	Volume 80
Reliability in Computational Mechanics, Proceedings of the Workshop on Reliability in Computational Mechanics	Volume 82
Symposium on Recent Developments in Large-scale Computational Fluid Dynamics	Volume 87
Selected Papers from the Second World Congress on Computational Mechanics	Volumes 89-91

M

L

O

2

2

I



# MECHANICS OF MATERIALS

An International Journal

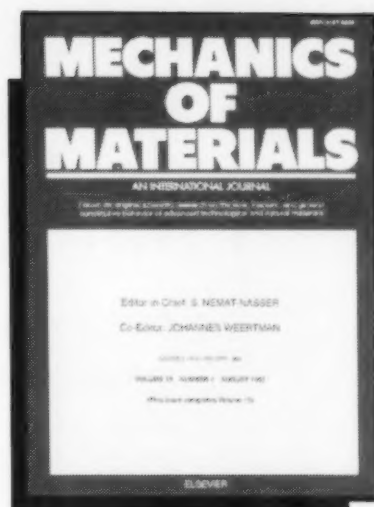
**Editor-in-Chief: S. Nemat-Nasser,**  
*University of California, San Diego, CA,  
USA*

**Co-editor: J. Weertman,**  
*The Technological Institute, Northwestern  
University, Evanston, IL, USA*

The journal is a forum for original scientific research on the flow, fracture, and general constitutive behaviour of advanced technological and natural materials, with balanced coverage of theoretical, experimental, and field investigations. Original contributions are published on the thermomechanical behaviour of technological materials such as metals, polymers, ceramics, various advanced composites, wood, etc. Geotechnical materials such as rock and soil, and thermomechanical processes pertaining to solid earth geophysics are also included.

**Audience:**

Materials scientists, civil engineers,  
fracture mechanics.



**Abstracted/indexed in:**

Applied Mechanics Review, Boundary  
Elements Abstracts, Cambridge Scientific  
Abstracts, Current Contents, Engineering  
Index, Geotechnical Abstracts, INSPEC,  
Metals Abstracts, Physics Briefs/  
Physikalische Berichte, Science Citation  
Index, World Aluminum Abstracts

**Subscription Information:**

1993: Volumes 15 & 16 (8 issues)  
Price: US\$ 485.50 / Dfl. 806.00,  
including postage and handling,  
ISSN 0167-6636

*The Dutch Guilder (Dfl.) price is definitive.  
US \$ price is subject to exchange rate fluctuations.*

---

**MECHANICS OF MATERIALS**

- ☐ Please send me a free sample copy  
☐ Please enter my subscription for 1993 and send me an invoice

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Send this coupon or a photocopy to:

**ELSEVIER SCIENCE PUBLISHERS**

P.O. Box 1991, 1000 BZ Amsterdam, The Netherlands  
P.O. Box 945, Madison Square Station, New York, NY 10160-0757

# Numerical Methods for Problems in Infinite Domains

by D. Givoli, Israel Institute of Technology, Haifa, Israel

*Studies in Applied Mechanics Volume 33*

This volume reviews and discusses the main numerical methods used today for solving problems in infinite domains. It also presents in detail one very effective method in this class, namely the Dirichlet-to-Neumann (DtN) finite element method.

The book is intended to provide the researcher or engineer with the state-of-the-art in numerical solution methods for infinite domain problems, such as the problems encountered in acoustics and structural acoustics, fluid dynamics, meteorology, and many other fields of application.

The emphasis is on the fundamentals of the various methods, and on reporting recent progress and forecasting future directions.

An appendix at the end of the book provides an introduction to the essentials of the finite element method, and suggests a short list of texts on the subject which are categorized by their level of mathematics.

## *Contents:*

### **Part I.**

1. Introduction and overview.
2. Boundary integral and boundary element methods.
3. Artificial boundary conditions and NRBCs.
4. Local non-reflecting boundary conditions.
5. Nonlocal non-reflecting boundary conditions.
6. Special numerical

procedures for unbounded and large domains.

### **Part II.**

7. The DtN method.
  8. Computational aspects of the DtN method.
  9. Application of the DtN method to beam and shell problems.
  10. The DtN method for time-harmonic waves.
  11. The DtN method for time dependent problems.
- Appendix: The finite element method. References. Index.

1992 xvi + 300 pages  
Price: US \$ 162.50 / Dfl. 260.00  
ISBN 0-444-88820-9



**ELSEVIER**  
SCIENCE PUBLISHERS

**Elsevier Science Publishers**  
P.O. Box 1991, 1000 BZ Amsterdam  
The Netherlands  
*in the USA/Canada:*  
Attn: Judy Weislogel, P.O. Box 945  
Madison Square Station  
New York, NY 10160-0757

*The Dutch Guilder (Dfl.) price is definitive.  
US\$ price is subject to exchange rate  
fluctuations.*

## INFORMATION FOR CONTRIBUTORS

Manuscripts should be sent in triplicate to one of the Editors. All manuscripts will be refereed. Manuscripts should preferably be in English. They should be typewritten, double-spaced, first copies (or clear Xerox copies thereof) with a wide margin. Abstracts, footnotes and lists of references should also be double-spaced. All pages should be numbered (also those containing references, tables and figure captions). Upon acceptance of an article, author(s) will be asked to transfer copyright of the article to the publisher. This transfer will ensure the widest possible dissemination of information.

### Abstracts

The text of a paper should be preceded by a summary in English. This should be short, but should mention all essential points of the paper.

### Figures and tables

The drawings for the figures must be originals, drawn in black India ink in large size and carefully lettered, or printed on a high-quality laser printer. The lettering as well as the details should have proportionate dimensions, so as not to become illegible or unclear after the usual reduction by the printers; in general, the figures should be designed for a reduction factor of two or three. Mathematical symbols should be entered in italics, where appropriate. Each figure should have a number and a caption; the captions should be collected on a separate sheet. The appropriate place of a figure should be indicated in the margin. Tables should be typed on separate sheets. Each table should have a number and a title. The appropriate places for the insertion of tables should be indicated in the margin. Colour illustrations can be included and will be printed in colour at no charge if, in the opinion of the Editors, the colour is essential. If this is not the case, the figures will be printed in black and white unless the author is prepared to pay the extra costs arising from colour reproduction.

### Formulae

Displayed formulae should be numbered and typed or clearly written by hand. Symbols should be identified in the margin, where they occur for the first time.

### References

In the text, reference to other parts of the paper should be made by section (or equation) number, but not by page number. References should be listed on a separate sheet in the order in which they appear in the text.

COMPLETE INSTRUCTIONS TO AUTHORS are published in every issue, and copies can also be obtained from the Editors and the Publisher, Elsevier Science Publishers B.V., P.O. Box 1991, 1000 BZ Amsterdam, The Netherlands.

## INFORMATION FOR SUBSCRIBERS

COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING (ISSN 0045-7825) is published in nine volumes (27 issues) a year. The subscription price for 1993 (Volumes 99-107) is SFrs. 3330 + SFrs. 297 p.p.h. = SFrs. 3627 (approximately US\$ 2539). Our p.p.h. (postage, packing and handling) charge includes surface delivery of all issues, except to subscribers in the following countries where air delivery (S.A.L. - Surface Air Lifted) is ensured: Argentina, Australia, Brazil, Canada, Hong Kong, India, Israel, Japan (+25% normal p.p.h.), Malaysia, Mexico, New Zealand, Pakistan, P.R. China, Singapore, South Africa, South Korea, Taiwan, Thailand, USA. For the rest of the world airmail charges are available upon request. Claims for missing issues will be honoured free of charge within six months after the publication date of issues. Mail orders and inquiries to: Elsevier Sequoia S.A., P.O. Box 564, CH-1001 Lausanne 1, Switzerland.

## INFORMATION FOR ADVERTISERS

Advertising orders and inquiries can be sent to the Advertising Manager, Elsevier Science Publishers B.V., Journal Division, P.O. Box 211, 1000 AE Amsterdam, The Netherlands.

### Special regulations for authors

Upon acceptance of an article by the journal, the author(s) will be asked to transfer copyright of the article to the publisher. This transfer will ensure the widest possible dissemination of information.

### Special regulations for readers in the USA

This journal has been registered with the Copyright Clearance Center, Inc. Consent is given for copying of articles for personal or internal use, or for the personal use of specific clients. This consent is given on the condition that the copier pays through the Center the per-copy fee stated in the code on the first page of each article for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. The appropriate fee should be forwarded with a copy of the first page of the article to the Copyright Clearance Center, Inc., 27 Congress Street, Salem, MA 01970, USA. If no code appears in an article, the author has not given broad consent to copy and permission to copy must be obtained directly from the author. All articles published prior to 1981 may be copied for a per-copy fee of US \$2.25, also payable through the Center. This consent does not extend to other kinds of copying, such as for general distribution, resale, advertising and promotion purposes, or for creating new collective works. Special written permission must be obtained from the publisher for such copying.

# COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING

*(Articles are abstracted/indexed in: ACM Computing Reviews, Applied Mechanics Reviews,  
Boundary Element Abstracts, Computer Abstracts, Current Contents, Engineering Index, ERDA Abstracts,  
INSPEC, Mathematical Reviews, Newsletter Engineering Analysis Software)*

## Cumulative Index of Volumes 1-100

### CONTENTS

Preamble	1
Cumulative Author Index of Volumes 1-100	7
Cumulative Co-author Index of Volumes 1-100	91
List of Special Issues of Volumes 1-100	113



0045-7825(199303)01/100\*;1-9

